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THE THAI ATTITUDE TOWARD WORK AND AUTHORITY;
A PILOT STUDY

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NAVAL POSTGRADUATE SCHOOL
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THESIS

THE THAI ATTITUDE TOWARD WORK AND AUTHORITY

A Pilot Study

by
Sompun Ruangvaidya

June 1974

Thesis Advisor: John Senger

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The Thai Attitude Toward Work and Authority

A Pilot Study

by

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reproduced in this volume. To assist any
student who may desire to continue research
in this area, a copy of the appendices is
on file in the Dudley Knox Library of the
Naval Postgraduate School.

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Last, but not the least, to my wife, Banchong who helped in the painstaking job of scoring and coding the responses and typing the manuscript.

I. INTRODUCTION

A. GENERAL

The concept of attitude is well known in the American culture. It is one of the most thoroughly researched topics in psychology. One can find its application every day in the American press. Yet in some other cultures, little attention has been paid to this important concept in social psychology.

Managers are very much concerned with attitudes of people. If a manager is to motivate his subordinates and employees, to be an effective leader, he must be knowledgeable about their attitudes, particularly job attitudes. A manager is constantly faced with decision making problems. Technical and operational problems are relatively easy to recognize. Human problems are usually more subtle and more difficult to diagnose. One of the diagnostic tools available to managers is the use of attitude measurement. In fact, the whole area of scientific management, work improvement is primarily directed at improving employee attitudes and long run increases in productivity must be considered in relation to employee attitude and motivation. Therefore one can view all functions of management--planning, organizing and controlling--as requiring a certain level of knowledge and understanding of employee attitude. This applies not only in business firms, but also to government organizations where profits are often more intangible and do not lend themselves to accurate quantification.

To answer to this basic managerial need, a great many studies have been conducted in Western business and industrial organizations to secure knowledge and understanding of employee job attitudes. In the early 50's Frederick Herzberg and his associates were able to review almost two thousand writings available at that time, and came up with factual information in the area of job attitudes which are of great interest and practical value.[1] Today study of employee attitudes is almost taken for granted in American industry. However, this is not yet the case with the Thai management practice.

With the gradual industrialization of the Thai economy, modern Thai officials and business managers are beginning to face similar human relation problems of the Western economy and feel the need for attitudinal information about employees. Unfortunately, little research has been done locally in this area of study. What is known about Thai attitudes are mostly results of extrapolation from research done on people in Western cultures.

B. PURPOSE

The purpose of this research is to undertake a pilot study to determine the feasibility of measuring the Thai attitudes toward work and authority by an application of a Thai language semantic differential scale in conjunction

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[1]Herzberg and others, Job Attitude: Review of Research and Opinion, p. 5, Psychological Service of Pittsburg, 1957.

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with a sentence completion test. The semantic differential
scale and the sentence completion test were developed and
validated first in the English language and then translated
into Thai and administered to a group of Thai subjects.
In this manner, partial triangulation can be achieved
between the semantic differential scales and the sentence
completion test. Comparison was also made among the results
of the English and Thai versions of the tests.

In this study, the attitudes toward work and authority
are chosen for two reasons: First because of their mana-
gerial applicability and second because of their cultural
implications.

This study is designed as a pilot study for three
basic reasons. First, little previous attitude research
has been conducted in Thai communities. Secondly, job
attitudes have such important implications in the area of
personnel management that extreme precaution is required
in drawing conclusions. Lastly, but perhaps the most
practical constraint, is the geographical separation between
the researcher and the Thai subjects. This separation,
together with the time constraint, necessitates the use
of convenient samples for the study. However, it is
believed that the study will be adequate in providing basic
information about the research approach in relation to the
Thai subjects, and serves the purposes of a good pilot
study.

II. <u>THEORETICAL CONSIDERATION</u>

A. A WORKING DEFINITION OF ATTITUDE

There are many definitions of attitude, put forward
with emphasis on different aspects of the construct. We
shall examine a number of definitions that are in existence
in order to gain a better understanding of the term as
used by various psychologists. A working definition of
attitude is needed in order to specify the areas of interest
in this study.

In the early 1900's Balwin defined attitude simply as
"readiness for attention or action of a definite sort."
Chave, in 1928, also viewed attitude as "a set or readiness
to act." Later authorities expanded on the notion and
added to it their own explanations. According to G. W.
Allport, an attitude is a "disposition to act which is
built up by the integration of numerous specific responses
of a similar type, but which exists as a neural 'set,' and
when activated by a specific stimulus result in behavior
that is more obviously a function of the disposition than
of the activating stimulus." The important thing to note
about this definition is that it considers attitudes as
broad generic (not simple and specific) determinants of
behavior. Allport put forward the following as a useful
definition:

An attitude is a mental and neural state of readiness,
organized through experience, exerting a directive of dynamic

influence upon the individual's response to all objects
and situations with which it is related. 1

Krech, Crutchfield and Ballachey define attitudes more
formally as "an enduring system of positive or negative
evaluation, emotional feelings, and pro or con action
tendencies with respect to a social object."[2] Attitude
is here defined in terms of evaluation, feeling and action
tendency. As they see it, an attitude is a result of man's
repeated cognition, feelings and responses to a social object
until he forms an enduring system of beliefs, feelings and
response tendency towards the object. This enduring system
is called attitude.

Lawless explains the meaning of attitude in less formal
terms. He states that attitude differs from belief or opinion
in that the latter do not carry the implication of feeling
or affect about the object. Belief or opinion consists
solely of a cognitive component, the element of knowledge
attained from a perception of certain facts. The attitude
is regarded as having two further elements. The first one
is the effective or feeling component. This is an emotional
element in the belief or cognition. Secondly an attitude
has as its component, a behavioral tendency. This refers
to the predisposition to act toward the attitude object.[3]

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[1]Allport, G. W., "The Composition of Political Attitudes,"
American Journal of Sociology, XXXV, pp. 220-238.

[2]Kretch, David, Crutchfield, Richard S., and Ballachey,
L. Egerton, Individual in Society: A Textbook of Social
Psychology, p. 177, New York: McGraw Hill, 1962.

[3]Lawless, David, Effective Management: Social Psychological
Approach, p. 167, McGraw Hill, 1972.

This explanation throws further light on Kretch, Crutchfield and Ballachey's definition. In normal usage the words opinion and attitude may be synonymous. (The Concise Oxford Dictionary defines opinion as "View, sentiment, belief based on grounds short of proof"; and defines attitude as "settled bahavior, as indicating opinion." Therefore, there is a fine line indeed that separates attitude and opinion. Backstrom and Hursh put attitude questions and opinion questions in the same category and added the following remark:

> To distinguish between opinion and attitude is no simple task. For example, if you ask people their "opinion" of two candidates for mayor, you might get their verbal evaluations of the merits of each. On the other hand, without being aware of it, you actually may be tapping attitudes toward candidate "A" as a Democrat and candidate "B" as a Republican. That is their opinions of the candidates are shaped by their party attitudes. Of course, deeper attitude sets underlie such affiliations. Additional probes into the reasons behind answers and the intensity with which they are held are necessary to make the important distinction between attitude and opinion.[1]

Along this line Helen Park contrasts attitude with other similar terms.

> There are many closely related terms here. Concept is the broadest (term). It is process with a referent. It stands for, refers to something. Attitude is a special class of conception with affective properties. They may or may not involve a time referent. Sentiments and Complexes

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[1]Backstrom, Charles H. and Hursh, Gerald D., Survey Research, reprinted ed., p. 160, North Western University Press, 1963.

are like attitude in this respect. Expectations
on the other hand, are a kind of conceptional
organization involving a time referent but they
may or may not carry affect.1

Sherif and Sherif pointed out the necessity to establish

criteria for differentiating attitude from temporary sets

or motive "unless the concept is to become a catchall for

explaining any and all non-random modes of behavior." He

offered the following six criteria for this purpose:

1. Attitudes are not innate. They are
acquired during the lifetime of the individual.
They are not inherited.

2. Attitudes are not temporary states
of the organism, but more or less enduring once
they are formed they are not immutable but are
not subject to change from moment to moment.

3. Attitudes stabilize a relationship
between the person and objects. They are formed
in relation to an identifiable referent. They
are stabilized person-object relationship with
the lasting products of interaction between
individual and environment. They are derived
from, among other things, the set of values
or norms prevailing in the person's group,
social class, institutions and his culture.

4. The subject-object relationship has
motivational-effective proportion. When a
person forms an attitude he is no longer neutral
toward the objects in question. He is either
for or against them.

5. Attitude formation involves the forma-
tions of categories encompassing a small or large
number of specific items.

6. Principles applicable to attitude forma-
tion in general are applicable to the formations
of social attitude.2

1Cummings, L. L. and W. E. Scott, Reading in Organization
Behavior and Human Performance, p. 160, Richard Irwin, 1969.

2Sherif, Muzafer and Sherif, Carolyn W., Social
Psychology, pp. 334-335, Harper and Row, 1969.

Subject-object relationship such as masculinity-
femininity, self esteem, agressiveness-shyness are tradi-
tionally considered as personality variables. But Sherif
and Sherif considered them as being social attitudes to
the extent that they involve normative standards or inter-
personal and group comparisons. Thus, in their view,
there is no sharp separation between social or personal
attitudes.

It can be seen that among psychologists the term has
many connotative meanings. These definitions, however, have
common denominators which are simple enough to take as
elements of a working definition. The term is used broadly
to refer to a hypothetical construct. Attitudes must have
referents, i.e. they are attitudes towards something or
someone. They have affective property, i.e. they involve
preferences, liking and disliking, favoring or not favoring.
There are differences of opinion as to whether attitude
should be regarded as readiness to respond toward certain
objects in certain ways. The notion of relationship between
attitudes and action may be an oversimplification of a
complex phenomenon. It is, however, a useful notion for
practical purposes.

We have discussed the term attitude at length in order
to obtain a working knowledge of it. This is considered
worthwhile especially from cross-cultural viewpoints. If
we are to handle a tool properly we must have thorough
knowledge of the tool in all aspects. There may be some
cultures which do not even have a word for "attitude."

A question could conceivably be asked whether the concept
of attitude as a psychological construct, is necessary or
even useful in explaining and predicting social behavior in
such a culture. If managers are interested simply in con-
trolling behaviors of the subordinates, might it be possible
to study the behaviors directly, by-passing the intermediate
constructs.[1] Such approaches, however, would be irrelevant
to our immediate purpose. We shall accept those character-
istics of attitude that are of practical significances.
One of these is that attitudes are acquired or learned over
a time span and once acquired they are enduring. Attitudes
can be inferred from verbal or nonverbal behavior that a
person selects in response to stimulus situations. Most
situations arouse not one attitude but a complex of attitudes,
therefore, a study of attitude must take this into account.

B. METHODS AND PROBLEMS IN THE MEASUREMENT OF ATTITUDE

To use the concept of attitude in understanding, pre-
dicting and influencing behavior, we need reliable and
valid measures. Like many psychological variables, attitude
is a hypothetical construct rather than an immediately
observable variable. The measurement of attitudes is
necessarily indirect. They can be measured only on the
basis of inference drawn from the responses of the individual

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[1]Skinner, B. F., Beyond Freedom and Dignity, pp. 1-23,
New York: Bantam Books, Inc., 1972.

toward the attitude object such as his actions, his verbal statements of belief, feeling and disposition to act with respect to the object.[1]

The content of an attitude is determined by the responses which constitute it. The set of behaviors comprising an attitude is called an attitude universe.[2] A sample of this universe is used to measure the attitude: from this sample of behavior an inference can be made about the entire universe. This means that the sample of elements should be representative. If only a small subset of the total attitude universe is sampled, then inference beyond this subset is not legitimate. In practice we seldom have the universe, but only the sample. We may characterize the elements of the universe by means of the sample; however it is important not to over-generalize. This practical limitation of attitude measurement is worthy of note when one is interpreting the results.

Methods of measurement of attitudes may be broadly classified into two categories: the scaling methods and the projective methods. By far the most widely used are the scaling methods. An attitude scale consists of a set of statements or items to which the person responds. The pattern of his responses provides a way of inferring something

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[1]Kretch, D., Crutchfield, R. S., and Ballachey, E. E., op. cit., p. 147.

[2]Lindzey, Gardner, (ed.), Handbook of Social Psychology, (3rd. printing), p. 336, Addison-Wesley, 1959.

about his attitude. Scales vary widely in type and in method of construction, but their objective is the same: to assign an individual a numerical position on a continuum, which indicates, for example, the degree to which he favors or disfavors the attitude object. We shall briefly describe some of the more common scaling methods in order to understand how attitude can be measured.

1. Scaling Methods

There are five major scaling techniques for the measurement of attitudes:[1] the judgement methods, the method of summated ratings, scalogram analysis, the cumulative scaling and the scale-discrimination technique. Among these the judgement methods and the method of summated ratings are most widely used.

a. Judgement Methods

The judgement method of attitude measurement are all varients of a technique developed by Thurstone and his coworkers.[2,3,4,5] They published a number of specific

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[1]Lindzey, Gardner, op. cit., p. 344.

[2]Thurstone, L. L., "The Measurement of Opinion," Journal of Abnormal Social Psychology, 1928, 22, p. 415-430.

[3]Thurstone, L. L., "Attitude Can Be Measured," American Journal of Sociology, 1928, 33, 529-554.

[4]Thurstone, L. L., "Rank Order as A Psychophysical Method," Journal of Experimental Psychology, 1931, 14, p. 187-201.

[5]Thurstone, L. L., and Chave, E. J., The Measurement of Attitude, University of Chicago Press, 1929.

scales for the measurement of attitude toward war, the
church, capital punishment, the Chinese, etc. Collectively
known as the Thurstone scale, it can be developed to measure
attitudes toward any object and the method has been widely
used. Basic to this method is the use of judges to assign
scale values to each item in the test. The respondents
are scored on the basis of their responses to the items.
Scales of this type are also known as differential scales.[1]

There are several methods of determining the
scale values of the items. If only a few items are to be
scaled, the method of paired comparisons is appropriate.[2,3]
The method of paired comparisons becomes unwieldy for large
numbers of items, since each possible pair of items must be
judged; for 25 items there are 300 pairs. Several methods
may be used as short cuts in this situation including the
methods of rank order, of equal-appearing intervals, and
of successive intervals.

Several objections have been raised against the
Thurstone-type scale.[4] Many have objected to the amount of

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[1]Selltiz, C., and others, Research Methods in Social
Relations, p. 359, Holt, Rinehart and Winston, 1967.

[2]Thurstone, L. L., "Psychophysical Analysis," American
Journal of Psychology, 1927, 38, p. 369-389.

[3]Guildford, J. P., Psychometric Methods, McGraw-Hill,
1936.

[4]Edwards, A. L., and Kenney, K. C., "Comparison of
the Thurstone and Likert Techniques of Attitude Scale Con-
struction," Journal of Applied Psychology, 1946, 30, p. 72-83.

work involved in constructing it. Another criticism has been that, since an individual's score is the mean or median of the scale values of the several items he checks, essentially different attitudinal patterns may be expressed in the same score. However this criticism is not unique to the Thurstone-type scale: it applies just as strongly to summated scales. A more serious criticism is that the attitudes of the judges may influence their judgements. Much study has been conducted to determine the extent of such influence, but the results are still inconclusive. It seems that the attitude of the judge will bias his judgement of items, but in most cases this effect will be small. Only judges with extreme attitudes will show substantial distortion.[1]

b. The Method of Summated Rating

A few years after the Thurstone scaling methods were introduced, Likert, (1932), [2,3] published a technique for the measurement of attitude which differs from the Thurstone technique in several important ways. In Likert's method of summated ratings, five categories of response are provided for each item: strongly approve, approve,

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[1] Selltiz, C., and others, op. cit., p. 365.

[2] Likert, R., "A Technique for the Measurement of Attitude," Archives of Psychology, 1932, No. 140, p. 44-53.

[3] Likert, R., Rostow, S., and Murphy, G., "A Simple and Reliable Method of Scoring the Thurstone Attitude Scales," Journal of Social Psychology, 1934, 5, p. 228-238.

undecided, disapprove and strongly disapprove. These
categories are scored 5, 4, 3, 2 and 1 respectively. If
an item is stated in a negative sense, with <u>strongly approve</u>
indicating an unfavorable attitude, the category scoring
is reversed. An individual's scale score is the sum of
his scores on the items. In the Thurstone scaling method
it is necessary to have agreement among judges as to the
proper scale placement of an item. In the Likert method
there is no such necessity. However the score yielded by
a Likert scale can be interpreted only in terms of where
the individual's score falls relative to the distribution
of scores of other people; the score does not have absolute
meaning. The minimum score indicates an unfavorable attitude;
the maximum score, a favorable attitude, but scores falling
between the minimum and maximum scores are more difficult
to interpret. This is a weakness of the method when our
interest is in determining whether an individual is favor-
able or unfavorable in his attitude toward our object. An-
other weakness is that it is an ordinal scale of measurement;
that is, it makes possible the ranking of individuals in
terms of the favorableness of their attitude toward a given
object, but it does not provide a basis for saying how much
more favorable one is than another, nor for measuring the
amount of change after some experience. This is a dis-
advantage from the point of view of the level of measure-
ment. Whether it is a disadvantage in comparison with the

Thurstone scale depends on ones judgement of whether Thurstone scales meet the criteria for interval scales.[1]

The Likert-type scale has several advantages over the Thurstone scale. It permits the use of items that are not manifestly related to the attitude being studied because, as mentioned earlier, it does not require agreement among judges. It is generally considered simpler to construct. It is likely to be more reliable than a Thurstone scale of the same number of items because the number of alternative responses is increased; the Likert-type scale items permit the expression of five degrees of agreement-disagreement, whereas the Thurstone scale item allows a choice between two alternative responses. And lastly, Likert-type scales provide, in effect, more precise information about an individual's opinion on the issue referred to by the given item.[2]

c. Cumulative Scaling Method

Cumulative scales, like differential and summated scales, are made up of a series of items with which the respondent indicates agreement or disagreement. In a cumulative scale the items are related to one another in such a way that, ideally, an individual who replies favorably to item three also replies favorably to item one and two; etc. The individual score is computed by counting the

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[1]Selltiz, Claire, and others, <u>Research Methods in Social Relations</u>, p. 369, Holt, Rinehart and Winston, 1967.

[2]Selltiz, Claire, <u>op. cit.</u>, p. 368.

number of items he answers favorably. This score places him on the scale of favorable-unfavorable attitude provided by the relationship of the items to one another. It was Guttman (1944) who advocated the use of such cumulative items as a basis for a formal method of scaling. This particular kind of scale is commonly called a Guttman scale. The procedure is also known as scalogram analysis. An example of a perfect Guttman scale would be one concerning weight, in which the items read as follows: (1) I weigh more than 100 pounds; (2) I weigh more than 120 pounds; (3) I weigh more than 140 pounds, etc. In such scale, a person who responds positively to item (3) must also have responded positively to items (1) and (2).

The statements that form a Guttman scale are unidimensional. Knowing the total score of an individual, it would be possible to reproduce perfectly his responses to each of the items. Perfect reproducibility is, of course, never realized in attitude scales. Some degree of irrelevancy is always found. Various techniques have been developed for estimating the coefficient of reproducibility.

The Guttman scaling method has been criticized for its neglect of the problem of representativeness in selecting the initial set of statements. Guttman (1945) has asserted that the selection of sample statements is a matter of intuition and experience. The content validity of cumulative scales is thus impossible to estimate.[1]

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[1]Kretch, D., Crutchfield, R. S., and Ballachey, E. L., op. cit., p. 155.

d. Reliability of Attitude-Scale Scores

Comparison of reliability of attitude scores obtained from different type of scales is of interest. For Thurstone scales, Ferguson (1939)[1] was able to obtain reliability coefficients ranging from .52 to .80 for 20-item forms and from .68 to .89 for 40 item forms. The reliability of Likert scales are generally higher than those reported for Thurstone scales. Murphy and Likert (1938) found their Internationalism scale of 24 items to have reliabilities ranging from .81 to .90. A 12-item Imperialism scale yielded reliability coefficients ranging from .80 to .92: a Negro scale of 14 items gave coefficients ranging from .79 to .91. Guttman scales have yielded reliabilities in the neighboorhood of .85 and higher.[2]

2. The Projective and other Indirect Methods

Techniques that rely on the individual's responses to direct statements, such as Thurstone and Likert techniques presuppose that the person is willing and able to give such information about himself. But this is not always true. People may be unwilling to discuss controversial topics or to reveal intimate information about themselves. Or they may be unable to give the desired information because they cannot easily put their feelings into words or because

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[1]Ferguson, L. W., "The Requirement of an Adequate Attitude Scale," Psychological Bulletin, 1939, 36, p. 365-373.

[2]Kretch, D., Crutchfield, R. S., and Ballachey, E. L., op. cit., p. 159.

they were unaware of the feelings. Or they may not under-
stand the statements the way they were intended. These
shortcomings tend to reduce the validity of attitude measure-
ment. In recent years a number of special techniques have
been developed to overcome such difficulty. These techniques
are largely independent of the subjects' self-insight and
of their willingness to reveal themselves. They can be
grouped into two classes, differing in their degree of
structure. The less structured ones are commonly referred
to as projective methods. The more structured ones are
sometimes known as disguised techniques or substitute
measures.

One principle advantage of such techniques is that
under certain conditions they may have higher validity than
direct measures. This advantage applies particularly to
attitudes which violate group norms and hence are not
readily revealed in public by an individual, and to attitudes
which are unacceptable to the self-concept of the individual.
A second principal advantage is that they enable attitudes
to be measured without being strongly affected by the
measurement. Direct measurement of attitudes, as we know,
may produce changes in the attitudes being measured.

a. The Projective Techniques

The term "projective technique" was originated
by L. K. Frank (1939) and is used to cover a variety of testing
instruments.[1] They are based on the assumption that the

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[1]Whitlas, D. K., Handbook of Assessment and Measurement
in Behavioral Sciences, p. 333, Addison-Wesley, 1968.

individual's organization of the relatively unstructured stimulus situation is indicative of basic trends in his perception of the world and in his response to it. They were first developed by psychologists and psychiatrists concerned with the diagnosis and treatment of patients suffering from emotional disorders, but later were found useful in the investigation of certain types of problems in social psychology, sociology and anthropology.

The stimuli used in projective tests are capable of arousing many different kinds of reaction, for example, an ink blot, a picture, a set of dolls. There are not "right" or "wrong" responses to the stimuli; it all depends on the individual's perception of the materials and the meaning he gives to them. The nature of the stimuli and the way in which they are presented do not clearly indicate the purpose of the test or the way in which the responses will be interpreted. In a projective test, the individuals' responses are not taken at face value but are interpreted in terms of some established psychological concept. Such interpretation requires specialized training.[1]

Among the more frequently used projective techniques are the Rorschach ink blot test, the Thematic Apperception Test, and the Tomkins-Horn Picture Arrangement Test. Other commonly used tests are: word association, sentence completion, doll play and figure drawing.

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[1]Selltiz, Claire, and others, op. cit., pp. 180-185.

The projective techniques that have been devised for the study of social attitudes vary in their effectiveness. Questions have been raised about their validity and the research evidence on this point is far from conclusive. Nevertheless, such techniques have been found useful although caution in their use and interpretation is indicated. Although projective techniques by themselves often produce scores of dubious predictive validity, when used in conjunction with other measuring devices they can help to develop an assessment picture that successfully predicts.[1]

b. Structured Indirect Tests

The rationale underlying the use of structured indirect tests or disguised tests is essentially the same as that underlying the use of projective techniques. Most tests of this kind are based on the fact that a person's attitudes are likely to influence his perceptions, beliefs, judgement, memory, etc. This has been demonstrated in a number of studies.[2] Examples of structured disguised tests are: information tests, reasoning tests, test of perception, memory and judgement.

Other indirect methods are in existence. For example, substitute measures involve measuring something

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[1]Whitlas, D. K., op. cit., p 335.

[2]Selltiz, Claire, and others, op. cit., p. 300.

else, or some combination of other things, that are highly
correlated with the characteristic one wants to measure.
In this group lies the F-scale (Adorne et. al., 1950) which
measures anti-semitism by substitution of authoritarian
attitudes. Another special technique is the use of the
semantic differential in the measurement of attitudes.
This technique is chosen for this present study together
with the sentence completion test. We shall discuss
these techniques briefly to provide an introductory basis
for the understanding of the logic of the methods.

3. The Semantic Differential

Osgood, Suci and Tannenbaum[1] (1957) developed a
scaling technique known as the semantic differential. The
basic purpose of this technique is to measure the meaning
of concepts. It is based upon a psychological aspect of
meaning which Osgood calls a representational mediation
process. The hypothesis underlying the technique is that
the meaning of an object for an individual includes not
only the denotative meaning which he can readily state, but
also more subtle connotative meanings, which are less
easily described. To measure these connotative meanings
an indirect approach is used. The approach is to use pairs
of polar adjectives as semantic scales. Osgood postulates
a semantic space, a region of some unknown dimensionality
and Euclidian in character. Each semantic scale, defined

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[1]Osgood, C. E., Suci, G. J., and Tannenbaum, The
Measurement of Meaning, University of Illinois Press, 1957.

by a pair of polar adjectives, is assumed to represent a straight line that passes through the origin of this space, and a sample of such scales then represent a multidimensional space.[1] The larger and more representative the sample, the better defined is the space as a whole. To define the semantic space with maximum efficiency we would need to identify a minimum number of orthogonal dimensions or axes. The tools to uncover these dimensions are factor analyses.

Through a series of factor analytic studies, Osgood and Suci (1955)[2] established three dimensions of semantic space-corresponding to three general components of meaning. The first is an evaluative component. It is most prominently identified by the following polar adjective scales: good-bad, beautiful-ugly, sweet-sour, clean-dirty, tasty-distasteful, valuable-worthless, kind-cruel, pleasant-unpleasant, bitter-sweet. The second is the potency component. It is most prominently identified by the following scales: strong-weak, large-small, heavy-light, thick-thin. The third is the activity component. It is most prominent in the following scales: active-passive, fast-slow, hot-cold, sharp-dull. The establishment of such dimensionality was supported in an interesting

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[1]See Exhibit 1, for an illustration of semantic space.

[2]Osgood, C. D., and Suci, G. J., "Factor Analysis of Meaning," Journal of Experimental Psychology, 1955, 50, p. 325-338.

way by a study by Solomon (1954).[1] As cited in Osgood,
Suci and Tannenbaum, this study of sonar sounds indicated
that they also have the three components of meaning.

    a. The Semantic Differential as an Attitude Scale

        Osgood argues that since attitude is part of
the internal mediational activity that operates between
stimulus and response patterns, it is by inference part
of semantic structure of an individual and may be corre-
spondingly indexed. The factor analytic technique provides
a basis for extracting this attitudinal component of meaning.
Since the factor analytic studies have predominantly iden-
tified the evaluative factor of objects, it seems reason-
able to relate attitude with the evaluative dimension of
the semantic space. Following this rationale, to index
attitude, sets of scales which have high leadings on the
evaluation factor across concepts, and negligible leadings
on other factors would be used. For purposes of scoring
consistency the unfavorable pole of the scales (e.g., bad,
unfair, worthless, etc.) is assigned the score "1" and the
favorable poles (good, fair, valuable) the score "7." The
sum of the scores over all evaluative ratings gives the
attitude index. The scale is sometimes known as the
evaluative scale or E-scale.

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    [1]Solomon, L. N., "A Factorial Study of Complex
Auditory Stimuli (Passive Sonar Sound)," Unpublished Ph.D.
dissertation, University of Illinois, 1954.

Osgood and his associates claim that the major properties of attitude that any measurement technique is expected to index are readily accommodated by this procedure. This includes the direction of attitude, the intensity of attitude and the unidimensionality of scale.[1] They have made a detailed evaluation of the technique in terms of objectivity, reliability, validity, sensitivity, comparability and utility.[2]

Semantic differential scales have been empirically compared with Thurstone scales for the measurement of attitudes. In one study, three objects (the Negro, the church, and capital punishment) were rated by a group of subjects using semantic differential technique consisted of five bipolar scales: fair-unfair, valuable-worthless, pleasant-unpleasant, clean-dirty, good-bad. The attitude of the subjects were also measured by Thurstone scales. The correlation between the semantic differential scores and the corresponding Thurstone scale scores ranged from .74 to .82.[3]

The reliability of the semantic differential as an attitude test is quite satisfactory. The test-retest

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[1]Osgood, C. E., Suci, G. J., and Tannenbaum, P. H., op. cit., p. 192.

[2]Ibid., pp. 125-188.

[3]Kretch, D., Crutchfield, R. S., and Ballachey, E. L., op. cit., p. 169.

reliabilities of attitude scores toward the Negro, the church and capital punishment obtained in the study cited above were found to be .87, .83, and .91 respectively. In no case were they significantly lower than the reliability coefficients for the Thurstone scale.[1]

The question of validity is more complicated and there seems to be no clear evaluation of the technique, in this respect. However, the validity of the semantic differential as an attitude test is suggested by the substantial correlations which have been found between scores obtained by it and scores on Thurstone and Guttman scales. As Osgood once concluded, "It would appear that whatever the Thurstone scales were measuring—and they were designed to measure attitude—the E-factor (from semantic differential scale) was measuring equally well."[2]

One advantage of semantic differential scale is that it is not grossly affected by the nature of the attitude object or by the type of individual using the scale. Osgood, working with U. S., French, Dutch, Japanese and Indian subjects, has provided substantial evidence that different types of subjects use the scales in similar ways and that the scales are comparable among subjects of

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[1]Ibid., p. 169.

[2]Osgood, C. E., "Cross-Cultural Comparability in Attitude Measurement via Multilingual Semantic Differentials," in M. Fishbein (Ed.), Readings in Attitude Theory and Measurement, p. 112, John Wiley, 1967.

different native languages and cultures[1] subject to their
personality variance. This is of particular value in a
cross-cultural study of attitude. However, a word of
caution is in order. The validity of the semantic dif-
ferential as a measure of attitude has been inferred pri-
marily by comparing semantic differential scores with
scores on standard Thurstone or Likert-type scales. Nickols
and Shaw (1964) found low correlations (.29 to .39) between
semantic differential scores and scores on Thurstone scales
when the attitude in question was particularly salient for
the respondents.[2] The usual moderately high correlations
(.71 to .76) were obtained with the same scales when the
attitude was not especially salient for the respondents.
Which scale is the more valid one is not clear from this
study, but it is clear that the semantic differential and
Thurstone-type scales cannot be treated as equivalent
measures when high saliency obtains.[3]

A final note of caution is appropriate. Osgood
et. al. (1957) noted that it was difficult to isolate
"pure" evaluative scales and that there was a high degree
of concept-scale interaction; the meanings of scales and

[1]Osgood, Charles, "Cross-cultural Comparability in
Attitude Measurement" in I. D. Steiner and M. Fishbein (Eds.),
Current Studies in Social Psychology, p. 104, Holt, Rinehart
and Winston, 1945.

[2]Nickols, S. A., and Shaw, M. E., "Saliency and Two
Measures of Attitude," Psychological Report, 1964, 14, p.
273-274.

[3]Shaw, M. E., Wright, J. M., Scales for the Measure-
ment of Attitudes, p. 568, McGraw-Hill, 1967.

their relations to other scales vary considerably with
the concept being judged.[1] Consequently, the set of bi-
polar adjectives which is appropriate for the measurement
of attitude may vary with the attitude object being
measured. Therefore in application of semantic differential
scale for the measurement of attitude one must take pre-
cautions to guard against the use of inappropriate scales.

4. The Sentence Completion Techniques

As the name suggests, the sentence completion
test consists of a number of incomplete sentences—some-
times just a single word—that the subject is asked to
complete with the first thing that comes to his mind. It
is an outgrowth of the classic technique of word association
employed many years ago by Carl Jung in the study of abnormal
behavior. In clinical psychology the use of sentence com-
pletion tests is well known and there are standard sets
of sentence openings with standard scoring method. In
social research, however each investigator generally com-
poses his own incomplete sentences tailored to the needs
of his particular problem.[2, 3]

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[1]Osgood, C. E., Suci, G. J., and Tannenbaum, P. H.,
op. cit., p. 187.

[2]Campbell, Donald, T., "The Indirect Assessment of
Social Attitude," in Martin Fishbein (Ed.), Readings in
Attitude Theory and Measurement, p. 165, John Wiley, 1967.

[3]Oppenheim, A. N., Questionnaire Design and Attitude
Measurement, pp. 167-178, Basic Book Inc., 1966.

The sentence completion test is primarily a useful and efficient way of asking sensitive questions, a method to get at the issues in a psychologically comfortable way. As Phillips[1] (1970) has pointed out, an incomplete sentence has at least three advantages over a direct question. First, the tendency to complete a half sentence is more compelling than the tendency to answer a direct question. The necessity for grammatical completeness tends to motivate completion. A direct question, on the other hand, is already a completed unit of thought and can be responded in many feasible ways, some of which may not be meaningful. An unfinished sentence will normally accept only those statements which will fulfill its grammatical requirement. This condition helps to reduce premeditated distortion of responses. However, prolonged reflection may introduce evasions, resistances and blocks.

Sentence beginnings can vary greatly in their relevance and subtlety. Some of them approach the problem in a direct way and obtain useful but narrow results. Others are more open and less obvious in their aim, so that results may produce more spontaneous and more revealing information. Often they are employed in a judicious mixture.

Sentence completion techniques have been used for studying attitudes of many kinds. For example, Ken (1943)

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[1]Phillips, Herbert, _Thai Peasant Personality: The Pattern of Interpersonal Behavior in the Village of Bang Chan_, p. 123, University of California Press, 1970.

used it in a study of national stereotypes held by English people.[1] Rotter's incomplete sentences tests were used in investigating attitude toward the Negro.[2] Burwen, Campbell and Kidd (1956) used this technique in measuring attitudes toward superiors and subordinates of Air Force cadets and found results to be of acceptable reliability, correlating .32 with a direct attitude measure of the same dimension.[3]

Because of the universal nature of language, sentence completion technique is advantageous in cross-cultural investigation of attitudes. Its drawback lies in the difficulty analyzing and interpreting such responses. For example, a sentence beginning may be phrased in the first person or in the third person. As yet there is no clear evidence about which phrasing is eliciting which kind of responses. Two studies directed to this point have reached contradicting conclusions.[4] However, as a tool for broad study of attitude this is not a serious handicap. Sentence completion tests, when employed in conjunction with other

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[1]Ken, M., "An Experimental Investigation of National Stereotypes," Sociological Review, 35, p. 37-43.

[2]Rotter, J. B., and Willerman, B., "The Incomplete Sentence Tests as a Method of Studying Personality," Journal of Consulting and Clinical Psychology, 1947, 11, p. 43-46.

[3]Burwen, L. S., Campbell, D. T., and Kidd, J., "The Use of a Sentence Completion Test in Measuring Attitudes Toward Superiors and Subordinates," The Journal of Applied Psychology, 1956, 40, p. 248-250

[4]Selltiz, Claire, and others, op. cit., p. 290.

techniques can provide information about individuals which make it possible to verify the resulting responses.

III. <u>METHOD</u>

A. DESIGN OF STUDY

Because the effects of direct methods of attitude measurement on the Thai subjects and communities are un-known, especially the social desirability effects, projective techniques were chosen for this study. Two methods were employed in a single questionnaire form to obtain a degree of triangulation between methods and to obscure the purpose of the study. Among those projective techniques that could have been used, the semantic differential and the sentence completion test were selected for two basic reasons: (1) both methods are based upon the universality of language which capitalizes on the cross-cultural aspects of attitude study, and (2) the possibility of comparison with previous works which have been carried out in related areas of study, particularly those of Osgood (1957) and Phillips (1971).

1. <u>The Semantic Differential Form</u>

Five evaluative bi-polar adjective scales were selected from Osgood's high loading pairs: (1) true-false, (2) good-bad, (3) wise-foolish, (4) kind-cruel, (5) beautiful-ugly. Six other high loading pairs, some measuring the potency component of meaning, some measuring the activity component, were added to the list, as suggested by Osgood, to obscure the purpose of the measurement and

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and to provide additional information on the meaning of the concept as a whole, aside from the attitude toward it.[1]

Strictly speaking, to measure attitudes toward work and authority, two concept words would have been adequate: "work" and "authority." However, other closely related concepts would provide iterative measurements provided that they are unidimensional. The addition of other concepts words would also give the form more respectable size. For these reasons the following were used as concept words: work, business, trade, responsibility, duty, play, recreation, game, rest, office, official, superior, subordinate, senior and authority. Beside unidimensionality, these concept words were selected for their translatability between the two languages. Even with this in mind, difficulty in translation could not be entirely avoided, as shall be seen later. In putting the concept words and the bipolar adjective pairs together, they were randomly arranged so as to prevent possible response set in subjects. The semantic differential scales and the instructions[2] constituting Part I of the questionnaire form, can be seen in Exhibit 2, and the Thai version in Exhibit 3.

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[1]Osgood, C. E., Suci, G. J., and Tannenbaum, P. H., op. cit., p. 191.

[2]The instruction is based on the one which has been used by Professor John D. Senger and found to work well. Slight modifications were made to accommodate the cultural differences.

2. The Sentence Completion Form

The construction of sentence beginnings had wide possibilities and was limited only by the researchers' imagination and ingenuity. For example, to tap the attitudes toward superiors and subordinates, Burwen et. al. used, among others, the following sentence beginnings:[1]

When the commanding officer called him he thought . . .

He liked to be with a leader who . . .

He never felt comfortable in the presence of . . .

He felt the men over him were . . .

The main trouble with the Air Force is . . .

Whenever he saw his superior coming he . . .

He thought the men under him were . . .

When giving orders to an enlisted man . . .

What his men liked most about him was . . .

The sentence beginnings used in this study are constructed along this line with special attention to translatability into Thai language. Twelve sentence beginnings are considered adequate for the purpose in terms of relevancy of items and length of form. Five of the sentence fractions are modifications of sentence beginnings used by Phillips[2] in his study of Thai peasant personality.

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[1]Burwen, L. S., Campbell, D. T., and Kidd, J., op. cit., p. 238.

[2]Phillips, H., op. cit., p. 143-199.

The sentence beginnings and the instructions con-
stituting the sentence completion form can be seen in
Part II of Exhibit 2, and the Thai version in Part II of
Exhibit 3.

3. A Note on Translation

It is well known that, because words generally
derive their meanings from the context, word by word trans-
lation is often unsatisfactory as a way of conveying ideas
and concepts. Yet in cross-cultural study through the
medium of language one cannot entirely avoid it. In the
translation of concept words from the English to the Thai
language effort has been made to make accurate translation
but this is not always possible. Even when a "coined"
word exists which is equivalent to an English word at
a level of usage, the word may not convey the same meaning
at a different level of usage. Two such words may be
cited as examples. The English word "experience" has a
"coined" Thai equivalent ประสพการณ์ (pronounced prasopkarn),
and the word "skill" has a coined Thai equivalent ทักษะ
(taksa). The word prasopkarn and taksa would convey the
same ideas of experience and skill to well educated Thai
readers (e.g. Thai officers) but would not do so to a
less educated Thai audience (e.g. Thai NCO's). The problem
is compounded when there is no equivalent Thai word for the
English word. In such cases the translator must choose
among many similar concepts the one that is closest to the
original concept. Translations of sentences are more
effective because of the available context.

There is a characteristic of the Thai language
which helps somewhat in the translation of concept words.
The Thai often use a pair of words to represent an idea.
Those paired words have almost the same denotative meanings,
may be even the same meanings but used in different geo-
graphic regions of the country. When paired together they
form a new word and derive a contextual meaning in the
process. It is believed that this is the case for the
concept word "work." Normally the word work would be
translated as งาน (ngan). But ngan by itself may connote
an activity or a fair (implying fun). When the word การ
(karn) is coupled to it the ambiguous connotation is
eliminated. We use the term การงาน for our translation.

Another difficulty is that even a coined equivalent
word sometime has an undesirable connotation. For example
the word authority is translated as เจ้าหน้าที่ (chao-na-tee).
But chao-na-tee is often associated with a policeman,
particularly to the lower-middle class Thai. However we
do not have a better word to translate "authority" into
the Thai language and we have to use the term เจ้าหน้าที่ for
the purpose of our study.

Osgood has met with similar difficulties in his
application of semantic differential across various languages
and culture communities. For example he uses the following
English-French translations:

nice - awful   =   gentil - méchant
happy - sad   =   gai - triste

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calm-frightened            =            rassurant-effrayant
likeable-repugnant         =            sympathique-antipathique
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These are not exact equivalents. The results obtained from the semantic differential scales do not seem to be adversely affected by such translation in terms of factoring out components of meaning. We shall assume that this will apply also in our Thai translation.

B. SUBJECTS AND ADMINISTRATION

The English semantic differential scale and sentence completion form were pretested by using NPS students in the Behavioral Research Method class as respondents. The number of usable completed forms was 13. Qualitative analysis of responses indicated no serious defect in the forms, however respondents suggested a few changes in wording which improves the clarity of the instructions. The questionnaire form was then translated into the Thai language and tested again with two Thai subjects to ensure that clarity was not lost and ambiguity was not introduced in the process of translation.

The form was administered to NPS students in the Behavioral Science class. The number of usable returned forms was 35. The Thai language form was carried to the Military Research and Development Center, Bangkok, Thailand for administering to the officers and NCO's of that organization, and the completed forms returned to NPS for analysis. The number of Thai officers who responded to the test was 30 and the number of Thai NCO's tested was 29.

IV. FINDINGS AND ANALYSIS

A. RESULTS OBTAINED FROM THE SEMANTIC DIFFERENTIAL FORM

The responses to each semantic differential scale
across the concept words were given scores of one to seven
in accordance with the standard practice suggested by
Osgood. For simplicity, when a response was missing a
score of four was given. Thus each concept word received
eleven scale scores, five of which were measures of eval-
uative factor, the rest were measures of potency and acti-
vity factor. Scores from five through seven indicated
a favorable response and scores from one through three
indicated an unfavorable response. The semantic differen-
tial form thus generated 165 variable scores for each
respondent. All scores were coded and punched on cards
for reference purposes, however, only scores that were
measures of evaluative factors were further analyzed in
depth. These latter scores were taken as attitude scores.
The raw scores can be seen on the computer printout.[1] In-
spection of the group score means and standard deviations
indicated no irregular pattern of scale scores. Group means
and standard deviations of scale scores for concept words
work, business, trade, responsibility and duty are shown
in Table Ia. Group means and standard deviations for

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[1]Appendix B.

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TABLE Ia   GROUP MEAN SCORES AND SD FOR CONCEPT "WORK"

CONCEPTS		WORK		BUSINESS		TRADE		RESPONSIBILITY		DUTY	
SCALES		$\overline{X}$	S.D.	$\overline{X}$	S.D.	$\overline{X}$	S.D.	$\overline{X}$	S.D.	$\overline{X}$	S.D.
TRUE–FALSE	A	5.60	1.06	4.94	1.06	5.06	0.97	5.71	0.99	5.29	1.15
	B	5.83	1.29	5.30	1.32	4.70	1.53	6.13	1.07	6.10	1.06
	C	5.90	1.20	5.89	1.37	4.93	1.71	6.10	1.14	6.03	1.35
GOOD–BAD	A	5.66	1.43	5.54	0.82	5.51	1.15	5.97	0.78	5.29	1.25
	B	5.83	1.29	5.63	1.19	5.63	1.25	6.30	0.92	6.20	1.03
	C	6.14	1.02	6.24	0.91	6.00	1.36	6.27	1.13	6.38	0.94
WISE–FOOLISH	A	5.86	0.74	5.51	0.82	5.46	0.89	6.00	0.87	5.57	1.12
	B	5.83	1.05	5.90	1.13	6.07	1.14	6.03	0.96	5.93	1.05
	C	5.96	1.24	6.21	1.17	5.89	1.61	6.10	1.20	6.34	0.81
KIND–CRUEL	A	4.49	1.22	3.69	1.28	4.14	1.06	4.46	1.46	4.06	1.37
	B	5.73	1.17	4.53	1.78	4.60	1.54	5.73	3.39	5.60	1.28
	C	6.21	0.90	5.83	1.17	5.45	2.01	6.07	1.16	6.27	0.84
BEAUTIFUL –UGLY	A	4.97	1.04	4.26	0.92	4.54	0.98	4.54	1.29	4.65	1.35
	B	5.67	1.03	5.07	1.31	4.53	1.57	5.33	1.21	5.50	1.14
	C	5.93	1.07	5.86	1.16	5.62	1.26	5.34	1.29	5.93	1.22

Legend: A = US Officer
          B = Thai Officer
          C = Thai NCO

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TABLE Ib   GROUP MEAN SCORES AND SD FOR CONCEPT "AUTHORITY"

CONCEPTS / SCALES		OFFICE		OFFICIAL		SUPERIOR		SENIOR		AUTHORITY	
		X̄	S.D.	X̄	S.D.	X̄	S.D.	X̄	S.D.	X̄	S.D.
TRUE— FALSE	A	5.06	1.33	4.94	0.94	5.09	0.95	4.80	1.05	4.74	1.34
	B	5.53	1.48	5.90	1.29	5.66	1.27	5.43	1.48	5.23	1.38
	C	5.86	1.43	6.00	1.19	6.10	1.23	6.03	1.08	5.96	1.15
GOOD— BAD	A	5.37	1.14	4.89	1.16	5.09	1.22	5.23	0.77	5.03	0.94
	B	5.47	1.57	6.13	1.31	5.90	1.27	5.20	1.49	5.53	1.57
	C	6.10	1.52	6.24	0.83	6.10	1.39	6.24	0.91	5.93	1.41
WISE— FOOLISH	A	5.29	0.82	5.26	1.15	5.37	1.00	5.20	0.90	5.00	0.94
	B	5.90	1.29	5.93	1.23	5.80	1.35	5.57	1.19	5.40	1.40
	C	6.27	1.31	6.03	1.12	6.39	0.73	6.14	0.91	6.24	0.83
KIND— CRUEL	A	4.06	1.26	4.54	1.04	4.66	1.11	3.97	1.01	4.14	1.11
	B	5.27	1.76	6.43	1.77	5.83	1.23	5.33	1.47	5.43	1.33
	C	5.03	1.70	6.31	0.76	5.96	1.37	6.10	0.86	5.93	0.79
BEAUTIFUL —UGLY	A	4.00	1.16	4.63	1.06	4.17	0.92	3.89	0.79	4.45	0.85
	B	4.76	1.52	5.63	1.33	5.37	1.25	4.97	1.29	5.90	1.24
	C	5.41	1.50	5.34	1.34	5.38	1.37	5.76	1.18	6.27	0.65

Legend: A = US Officer
          B = Thai Officer
          C = Thai NCO

TABLE Ic

STATISTICAL COMPARISON AMONG GROUP SCORES
FROM SEMANTIC DIFFERENTIAL SCALE

STATISTICS	US OFFICER	THAI OFFICER	THAI NCO
CONCEPT "WORK"			
Mean	127	140	149
Standard Deviation	14	19	19
Maximum	159	175	175
Minimum	99	96	102
Range	60	79	73
Kurtosis	-0.49	-0.31	-0.44
Skewness	0.41	-0.31	-0.67
CONCEPT "AUTHORITY"			
Mean	119	139	149
Standard Deviation	13	22	16
Maximum	156	175	175
Minimum	97	98	125
Range	59	77	50
Kurtosis	0.53	-1.12	-1.14
Skewness	0.71	-0.03	0.21

concept words office, official, superior, senior and authority are shown in Table Ib. These two groups of concept words were considered as attitude object work and attitude object authority, respectively. Scores for other concept words, although of considerable interest were not further analyzed in this study.

B.   RESULTS OBTAINED FROM THE SENTENCE COMPLETION FORM

The modest number of 12 sentence beginnings generated a wealth of qualitative data about the respondents. Often, the responses on the sentence completion test elucidate irregularity in the responses to the semantic differential form. Following standard practice, responses to each question were classified into as many categories as the response grouping indicated. The number of cases in each category was then counted. Because size of the sample in the three groups of subjects (35, 30, 29) were quite close, it was considered necessary to compute percentage of responses for comparison. To do so would perhaps be more arithmatically precise, but also more vague. The attitude of the subject groups was represented by the frequency of response in each category.

The use of sentence completion test data varies from subjective evaluation to complicated scoring procedures. In this study, in order to compare results obtained from the sentence completion test with the semantic differential test, an attempt was made to quantify the responses by giving each category a score within the range of the

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semantic differential scale scores. The responses were examined first to determine whether they were related to the concept of work and authority. Those that were considered related to attitude toward work and authority were further classified into categories of relationships. Each classification was then given a score in accordance with its degree of favorable-unfavorable evaluation or work and authority. Responses that were not relevant to the evaluation of work and authority were given a score of four. Because of the necessarily subjective nature of scoring, extreme scores (1 and 7) were not used in the sentence completion form responses. The effect of this procedure was to give it an artificial central tendency although any error was on the conservative side.

The categorical responses and scores for responses to each incomplete sentence are shown in Tables III to XIV. Group score means and standard deviations for each incomplete sentence can be seen in Table II.

C. ANALYSIS OF DATA

Semantic differential scale scores and sentence completion test scores are treated as variable value. Each combination of one concept word and one pair of bipolar adjectives was given a variable name. For example, the concept word work was measured by a true-false scale as variable 1 (VAR001), the concept word work was measured by a good-bad scale in variable 2 (VAR002), and so on. Thus, we had 165 semantic differential scale variables

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TABLE II

GROUP MEANS AND STANDARD DEVIATIONS OF
SENTENCE COMPLETION TEST SCORES

NO	SENTENCE BEGINNINGS	GROUP	MEAN	SD
1	When he thinks about his livelihood, he . . .	A B C	4.51 5.03 5.21	1.82 1.35 1.40
2	People who do not have to work for their living are . . .	A B C	3.63 5.67 5.83	1.78 0.80 0.38
3	The most important thing in life is . . .	A B C	4.23 4.20 4.33	0.81 0.61 0.77
4	When he has time he . . .	A B C	4.34 5.40 5.79	1.03 0.93 0.62
5	He is wealthy because. .	A B C	5.14 5.00 5.38	1.00 1.26 1.08
6	When he has a lot of money he . . .	A B C	4.51 5.13 5.10	0.89 1.01 1.01

Legend: A = US Officer
B = Thai Officer
C = Thai NCO

TABLE II
(Continued)

NO	SENTENCE BEGINNINGS	GROUP	MEAN	SD
7	Poor people are . . .	A B C	4.03 4.39 4.38	0.17 0.49 0.49
8	When the boss told him not to do it he . . .	A B C	5.31 5.40 5.52	1.18 0.49 0.51
9	When he is in the presence of a man who is superior to him, he feels . . .	A B C	3.94 5.33 5.31	1.97 1.52 1.54
10	When his superior gave him an order which he knew was wrong, he . . .	A B C	4.40 4.33 2.96	1.73 1.75 1.57
11	When he was placed in a position of power, he . .	A B C	4.91 5.07 4.83	0.95 0.91 0.85
12	The best way to treat a subordinate is . . .	A B C	4.00 4.00 4.00	0 0 0

TABLE III

STC RESPONSES AND SCORES: SENTENCE NO. 1

SENTENCE BEGINNING: WHEN HE THINKS ABOUT

HIS LIVELIHOOD HE . . .

RESPONSE CATEGORY	SUBJECT GROUP A	B	C	SCORE
Satisfaction: Well Pleased with results Content	6	3	1	6
Efficiency: Monetary profit, salary Perseverance, hard work Planning what to do	7 5 1 — 13	3 6 3 — 12	3 12 3 — 18	5
Description of good performance: Responsibility Goal seeking	2	9	2	5
Dissatisfaction: Worries Doubt Uncertainty	7 4 — — 11	— 2 2 — 4	2 1 1 — 4	2
Other	3	2	4	4
Total	35	30	29	

Legend: A = US Officer
           B = Thai Officer
           C = Thai NCO

TABLE IV

STC RESPONSES AND SCORES: SENTENCE NO. 2
SENTENCE BEGINNING: PEOPLE WHO DO NOT HAVE TO WORK
FOR THEIR LIVING ARE . . .

| RESPONSE CATEGORY | SUBJECT GROUP | | | SCORE |
	A	B	C	
Disapproval:				
Lazy	2	4	12	
Bored	5	–	–	
Missing important aspect of life	2	1	–	6
Irresponsible	–	9	2	
Bad	–	6	4	
Handicapped	–	4	6	
	9	24	24	
Approval:				
Lucky, fortunate	18	1	–	
Happy	–	1	–	2
	18	2	–	
Explanation:				
Rich	5	4	5	5
Other	3	–	–	4
Total	35	30	29	

Legend: A = US Officer
               B = Thai Officer
               C = Thai NCO

TABLE V

STC RESPONSES AND SCORES: SENTENCE NO. 3
SENTENCE BEGINNING: THE MOST IMPORTANT THING IN
LIFE IS . . .

| RESPONSE CATEGORY | SUBJECT GROUP | | | SCORE |
	A	B	C	
Achievement, success	5	3	—	
Work per se	—	—	5	6
Other value concepts:				
Happiness	11	2	3	
Contentment	4	2	—	
Love	2	—	—	
Religion, religious	2	4	—	
Survival	1	3	—	
Being good, kind	—	5	1	4
Money	—	5	1	
Family	—	2	1	
Justice	—	—	1	
"The four necessities of life"	—	6	12	
Other	10	3	4	4
Total	35	30	29	

Legend: A = US Officer
           B = Thai Officer
           C = Thai NCO

TABLE VI

STC RESPONSES AND SCORES: SENTENCE NO. 4

SENTENCE BEGINNING: WHEN HE HAS TIME HE . . .

RESPONSE CATEGORY	SUBJECT GROUP			SCORE
	A	B	C	
Related to work: Works Does something beneficial Uses it well "moonlighting"	1 3 — —	3 1 6 —	5 1 5 1	6
	4	10	12	
Not related to work: Does things he enjoys Education, religion Recreation, sports, play Relax, enjoy himself Reflect, think about 　　　　　　things Get away from everything	4 — 10 11 1 1	— 11 — 5 4 —	— 12 — 5 — —	4
	27	20	17	
Wastes it	2	—	—	2
Other	2	—	—	4
Total	35	30	29	

Legend:　　　A = US Officer
　　　　　　 B = Thai Officer
　　　　　　 C = Thai NCO

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TABLE VII

STC RESPONSES AND SCORES: SENTENCE NO. 5

SENTENCE BEGINNING: HE IS WEALTHY BECAUSE . . .

RESPONSE CATEGORY	SUBJECT GROUP A	B	C	SCORE
Related to work: He works hard, perseveres He is capable, smart	9 10	8 5	9 4	6
	19	13	13	
Related to other virtues: He is willing to take risks He is thrifty He inherits it He is lucky	1 1 9 --	– 5 5 4	1 7 7 –	4
	11	14	15	
Related to vices: He is unscrupulous, opportunistic	–	2	1	2
"not" because of money	2	–	–	4
Other	3	1	–	4
Total	35	30	29	

Legend: A = US Officer
                 B = Thai Officer
                 C = Thai NCO

TABLE VIII

STC RESPONSES AND SCORES: SENTENCE NO. 6

SENTENCE BEGINNING: WHEN HE HAS A LOT OF MONEY, HE . . .

| RESPONSE CATEGORY | SUBJECT GROUP | | | SCORE |
	A	.B	C	
Related to work: Invests Saves it Building up wealth Spends it sensibly	4 1 — 5	1 3 — 13	1 2 4 9	6
	10	17	16	
Not related to work: Enjoys it Gives to good cause "spends" it Other	7 2 11 5	2 8 3 —	4 8 — 1	4
	25	13	13	
Total	35	30	29	

Legend: A = US Officer
               B = Thai Officer
               C = Thai NCO

TABLE IX

STC RESPONSES AND SCORES: SENTENCE NO. 7

SENTENCE BEGINNING: POOR PEOPLE ARE . . .

| RESPONSE CATEGORY | SUBJECT GROUP | | | SCORE |
	A	B	C	
Not good at work: Unskilled, untrained Lazy Spendthrift	1 – –	3 7 2	3 7 1	5
	1	12	1i	

Sympathetic expressions:
Victim of
      circumstances
Deprived
Unfortunate
Pitiful
Pitiful but not
  necessarily unhappy
Just like everybody
Good people
	5
	5
	9
	5
	
	2
	2
	2
		–
		3
		2
		6
		
		1
		2
		–
			2
			1
			1
			8
			
			–
			–
			–
				4

	30	14	12	
Other	4	4	23	4
Total	35	30	29	

Legend: A = US Officer
               B = Thai Officer
               C = Thai NCO

TABLE X

STC RESPONCES AND SCORES: SENTENCE NO. 8

SENTENCE BEGINNING: WHEN THE BOSS TOLD HIM TO

DO IT, HE . . .

| RESPONSE CATEGORY | SUBJECT GROUP | | | SCORE |
	A	B	C	
Obedience, unconditional: Did it	22	12	15	6
Obedience, conditional: Did it if order is legitimate	6	7	11	5
Did it after discussing with the boss	2	10	3	
	8	17	14	
Disobedience: Objected	3	—	—	2
Other	2	1	--	4
Total	35	30	29	

Legend: A = US Officer
           B = Thai Officer
           C = Thai NCO

TABLE XI

STC RESPONSES AND SCORES: SENTENCE NO. 9

SENTENCE BEGINNING: WHEN HE IS IN THE PRESENCE

OF A MAN WHO IS SUPERIOR TO HIM, HE FEELS . . .

| RESPONSE CATEGORY | SUBJECT GROUP | | | SCORE |
	A	B	C	
Favorable: Respect, admiration Respect if good An equal, learn from him	5 — 11	10 3 12	15 2 7	6
	16	25	24	
Unfavorable: Regret, angry Challenged, competitive Inferior, timid, uncomfortable	1 3 13	— 1 4	— — 5	2
	17	5	5	
Other	2	—	—	4
Total	35	30	29	

Legend: A = US Officer
               B = Thai Officer
               C = Thai NCO

TABLE XII

STC RESPONSES AND SCORES: SENTENCE NO. 10

SENTENCE BEGINNING: WHEN HIS SUPERIOR GAVE HIM

AN ORDER WHICH HE KNEW WAS WRONG, HE . . .

RESPONSE CATEGORY	SUBJECT GROUP A	B	C	SCORE
Favorable: Try to reason with him	17	15	5	6
Unfavorable: Did it reluctantly Did not do it Objected, challenged Avoided doing it Confused	7 2 4 1 3	5 7 – 2 –	3 8 3 9 –	2
	17	14	23	
Other	1	1	1	4
Total	35	30	29	

Legend: A = US Officer
              B = Thai Officer
              C = Thai NCO

TABLE XIII

STC RESPONSES AND SCORES: SENTENCE NO. 11

SENTENCE BEGINNING: WHEN HE WAS PLACED IN

A POSITION OF POWER, HE . . .

RESPONSE CATEGORY	SUBJECT GROUP A	B	C	SCORE
Positive, favorable: Use it wisely, properly	14	11	9	6
Favorable: Be fair Be kind	3 1	9 6	7 5	5
	4	15	12	
Negative: Be autocratic Not be power drunk	2 —	— 1	1 —	4
	2	1	1	
Descriptive: How to discharge duty	11	2	6	4
Other	4	1	1	4
Total	35	30	29	

Legend: A = US Officer
            B = Thai Officer
            C = Thai NCO

TABLE XIV

STC RESPONSES AND SCORES: SENTENCE NO. 12

SENTENCE BEGINNING: THE BEST WAY TO TREAT A

SUBORDINATE IS . . .

RESPONSE CATEGORY	SUBJECT GROUP			SCORE
	A	B	C	
With kindness and understanding	10	21	10	
With fairness	6	4	8	
With respect	9	–	–	
As an equal	3	–	–	4
To train him	1	1	4	
To put him to work according to his ability	–	–	3	
Other	6	4	4	
Total	35	30	29	

Legend: A = US Officer
           B = Thai Officer
           C = Thai NCO

(VAR001 to VAR165) and 12 sentence completion test variables (VAR166 to VAR177). The detailed variable names can be seen in the variable name matrix.[1]

Descriptive statistical analysis of semantic differential scores indicated persisting patterns of responses in both groups of concept words, one group related to "work," the other group related to "authority." Group scores for Thai NCO's were higher than group scores for Thai officers and higher than that of U. S. officers. Comparison of the statistics of the total scores for the three subject groups is shown in Table Ic. It can be seen that in all subject groups the ranges were approximately three to four times the standard deviations. Skewness and kurtosis were close to zero. Thus the distribution of scores appeared to be fairly close to normal distribution, with a predominant central tendency.

Assuming that semantic differential scores and sentence completion test scores are ordinal measures, the scores were subjected to a non-parametric correlation analysis using subprogram NONPAR CORR of the Standard Package for the Social Sciences computer package program. It was found that for U. S. officer group, the concept word "work" scores under the five evaluative scales correlated well with each other, with Spearman Correlation Coefficients ranging from 0.5799 at 0.001 level of significance to 0.1258

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[1] Appendix A

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at significance level 0.236.[1] Moreover, scores under the
true-false scale across concept "work," "business," "trade,"
"responsibility" and "duty" also correlated well among
these concept words, with Spearman coefficients ranging
from 0.5374 at 0.001 to 0.7226 at 0.241 significance level.
In all, 25 variables measuring the concept "work" ten percent
of the variable pairs produced low negative correlations
with low level of significance. Better correlation obtained
in the cases of Thai officer group (highest coefficient
.6946 at significance level 0.001) and Thai NCO group
(highest coefficient 0.8392 at significance level 0.001).
Similarly good correlations were also found in the scores
for concept authority. The highest coefficients and signif-
icance levels were 0.6897 at 0.001, 0.7802 at .001, 0.7686
at 0.001, for the U.S. officer, Thai officer and Thai NCO
groups respectively.[2] Correlation analyses between semantic
differential scores of concept "work" and "authority" with
sentence completion test scores produced low coefficients
and did not indicate a clear cut pattern of relationship
in any of the three groups.

As can be seen in Tables Ia and Ib, the means of group
Semantic differential scores consistently increased from
U. S. Officers to Thai officers to Thai NCO's. To ascertain

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[1]Appendix B

[2]Appendix B

whether the differences among these group means were statistically significant, the SPSS discriminant function analysis was employed. This implied an assumption that the attitudes under study were multivariate normal. Results indicated that of the 25 measures of attitude toward work, seven of those measures were significantly different among the three groups at higher than 90 percent level and two were above 99 percent significance level. Similar results obtained in the case of attitude toward authority. In this case nine were above the 90 percent level and four were above the 99 percent level of significance.[1]

To verify the characteristics of the semantic differential scales as related to the concept words used in this study, the scores were factor-analyzed by SPSS standard FACTOR procedure. This procedure used a principal factoring method with iteration and orthogonal varimax rotation. As can be seen in the computer printout, the results indicated well defined groupings of the three factors for the concept "work"[2] but less clear groupings for the concept "authority."[3] Factor loadings were fairly good in both cases, the majority being in the neighborhood of 0.6.

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[1]Appendices G and H

[2]Appendix E

[3]Appendix F

V. DISCUSSION

A. THE SEMANTIC DIFFERENTIAL

Similarity in patterns of response to the semantic differential form among the U. S. and the Thai respondents was discernible early in the process of scoring the responses. This similarity was borne out by various statistical analyses. There are a few respondents, both U. S. and Thai, who responded in salient fashions such that they got a score of 1 (indicating highly unfavorable evaluation), or 7 (indicating highly favorable evaluation), or 4 (indicating neutral of indeterminate response), in all or most of the SD scales. However, the majority of respondents appeared to respond in a reasonable and meaningful fashion. This strong similarity suggests that, to the extent that an SD scale is valid for measuring the attributes of the U.S. subjects, it is also valid for measuring those attributes of the Thai subjects.

Although inspection of responses did not indicate what, in fact, went on in the minds of the respondents, particularly the degree of projection that took place, it was reported by an officer who administered the questionnaire to the Thai respondents that many of them, asked questions which revealed that they did not see what the test what getting at. On the one hand this can be considered as an indication that the form was working in the way that it was designed to work—disguising the real purpose of the

test. On the other hand, this tends to decrease face validity of the scale, as an attitude measuring tool. This point has been addressed earlier and it has been pointed out that there are reasons to believe that the method is valid although the evidence is far from conclusive. We might make one more observation on this point. Semantic differential techniques are based on the so called structural theory of psychology. A structural theory is "a theory which regards a phenomenon as an aggregate of elemental components interrelated in a lawful way."[1] An excellent example of a structural theory is the atomic theory in chemistry which states that chemical substances are lawful composition of the atomic elements, with the laws governing the compositions based on the interaction of the molecules. Structural theories have been useful in other disciplines such as linguistics and biology. Although not fully developed, the structural theory has its place in psychology. As Mulaik explains:[2]

> At the most fundamental level a psychologist may regard behaviors as ordered aggregates of cellular responses of the organism. However, psychologists still have considerable difficulty in formulating detailed structural theories of behavior because many of the physical components necessary for such theories have not been identified and understood. But this does not make structural theories impossible in psychology. The history of other sciences

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[1]Mulaik, Stanley A., The Foundations of Factor Analysis, p. 1, McGraw-Hill, 1972.

[2]Ibid.

shows that scientists can understand the abstract features of a structure long before they know the physical basis for this structure. For example, the history of chemistry indicates that chemists could formulate principles regarding the effects of mixing compounds in certain amounts long before the atomic and molecular aspects of matter were understood. Gregor Mendel stated the fundamental laws of inheritance before biologists had associated the chromosomes of the cell with inheritance. In psychology Isaac Newton in 1704 published a simple mathematical model of the visual effects of mixing different hues, but nearly a hundred years elapsed before Thomas Young postulated the existence of three types of color receptors in the retina to account for the relationships described in Newton's model. And only a half-century later did physiologist Helmholtz actually give a physiological basis to Young's theory. Much of psychological theory today still operates at the level of stating relationships among stimulus conditions and gross behavioral responses.

As a tool for measuring gross behavioral responses, the semantic differential scale has worked quite satisfactorily. All of the statistical analyses of the data in this study tie together fairly well. As indicated earlier, group mean scores for both concepts work and authority significantly increased from the U.S. officers to the Thai officers and to the Thai NCO's. This can be simply interpreted as an indication of more favorable attitude toward the objects on the part of the two Thai groups. It is noted that there are two cultural factors which tend to produce such results. First, the term work in English has some undesirable connotations. There are some linguistic indications that work was originally associated with womanhood; thus the words labor and travail are used in connection with childbirth. The term has become synonymous with activity with little reference to

the human aspects of working. In the Thai language, there
is no such negative connotation. On the contrary, the term
is always related to some useful or pleasurable activity.
A clue to the unfavorable connotation seems manifest in
one response to the sentence completion test. One of the
U. S. subjects completed a sentence beginning thus: - "When
he thinks about his livelihood he . . . is conscientious,
works hard; jokes about it but takes it seriously." It
seems as if he does not want to appear serious about working
although he is serious about it. By employing five concept
words related to work and five concept words related to
authority this effect may be somewhat neutralized, but one
cannot be certain to what extent.

Secondly, the social desirability in the Thai NCO's
responses is much more evident than in the case of Thai
officers and seems to be absent in the case of U. S. officers.
For example in sentence No. 2 "People who do not have to
work are . . .;" 12 Thai NCO's responded with "lazy." Only
four Thai officers and two U. S. officers responded in this
way. On the other hand 18 U. S. officers responded with
"lucky" or "fortunate," indicating a somewhat non-blaming
and relaxed attitude toward work. The U. S. group appeared
to favor success and achievement rather than work per se,
as can be seen in responses to sentence No. 3. It must
be emphasized here that we are talking about attitude, a
psychological construct, as expressed in the responses and
not the actual behaviors or performance of the respondents.

Keeping these caveats in mind, it would appear that the Thai attitudes toward work and authority were somewhat more favorable than those of the U. S. respondents. Osgood has indicated that semantic differential scores for attitude object "work" among various nationalities compared as follows:[1] American 0.5, Dutch 0.7, Flemish 0.2, French 0.9, Finnish 0.3, Japanese 1.0, Indian (Kannada) 1.0. Using the results of this study and assuming that the U. S. officer group is representative, we could add the following to the list: Thai officers 0.56, Thai NCO's 0.59.[2] In view of various limitations in sampling, to generalize to larger groups would be hazardous.

However perhaps the most useful result of this study was not the absolute measurement of the Thai attitudes toward work and authority. Of more practical significance was the finding that the majority of the Thai's responded to semantic differential scales in meaningful ways. It appeared that semantic differential techniques could be employed in measuring Thai attitudes and other psychological attributes. As Breslin et. al.[3] has put it, "the technique is deceptively simple." Yet it can provide a good measure of the degree of favor-disfavor of a person toward an attitude object.

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[1]Osgood, C. E., Cross-Cultural Comparability in Attitude Measurement via Multilingual Semantic Differentials, loc. cit.

[2]From Table Ic: $\frac{140}{125} \times 0.5 = 0.56$: $\frac{149}{125} \times 0.5 = 59$

[3]Breslin, R. W., Lonner, W.J.,and Thorndike,R.M., Cross-Cultural Research Methods, p. 224, John Wiley, 1973.

B.   THE SENTENCE COMPLETION TEST

The sentence completion test (SCT) was useful in
verifying responses to the semantic differential as indi-
cated in the previous paragraphs. The SCT also provided
a large amount of information concerning the attitude
objects which would be valuable in the construction of
Thurstone or Likert-type scales. Quantifying SCT responses,
however, was subjective and difficult due to the open-
ended nature of the questions. Therefore attempts to
subject SCT scores to rigorious statistical analysis seemed
futile. Nevertheless SCT responses can be evaluated
easily for the purpose of qualitative comparison among
respondents. Comparison of some results obtained by
Phillips[1] in studying Thai peasants, with results from
this study clearly indicated the differing values in the
urban groups of officers and NCO's. For example, 57% of
the peasants responded to the sentence "The most important
thing in life is . . ." in terms of subsistence and wealth,
while in the urban groups only about 30% did so and the
majority responded with other value concepts such as
happiness, achievement and being a good person. To the
sentence beginning "When the boss told him to do it, he
. . .," 86% of the peasants responded with positive "did it,"
while only about 45% of the urban groups responded

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[1]Phillips, J. P., Thai Peasant Personality, loc. cit.

in this manner. This difference in level of valuation was expected and the result seemed to reinforce the need to be cautious about extrapolation to other groups of people even in the same culture.

VI. SUMMARY AND CONCLUSIONS

This study aimed at measuring Thai attitudes toward work and authority as a means of gaining better understanding of the Thai mentality related to behavioral research methods. Among a wide variety of attitude objects, work and authority are chosen for their direct relevancy to managerial functions, particularly in the management of the military. Two in-direct methods of attitude measurement were employed in conjunction with each other to ensure at least some degree of triangulation between methods. These two methods were the semantic differential and the sentence completion test. Five bipolar adjective pairs were used as evaluative scales to measure five concept words related to work and five concept words related to authority. In effect we had five yardsticks measuring the attitude toward concept words with five iterations. Twelve sentence beginnings were employed in the sentence completion test, six were designed to tap attitudes toward work and six toward authority.

Three groups of subjects were tested, U. S. officers, (N=35), Thai officers (N=30), and Thai NCO's (N=29). Because of previously known results of similar measurement on the English speaking subjects, the U. S. officers served as a quasi-control group.

Statistical analyses of the data indicated that the SD instrument measured the subjects attributes similarly in all three groups. Results showed close similarity to previous works conducted by investigators in related fields.

Thai attitudes toward work and authority, as measured from the subject groups appeared to be somewhat more favorable than that of the U. S. control group. However, cultural factors must be considered in interpreting the results.

As a pilot study, this work showed that it is possible to measure Thai attitudes with the semantic differential technique and sentence completion tests. The small size of the sample limited the generalizeability of the findings. Improvements could have been made in the study by increasing the sample size and randomized selection of subjects.

If a systematic study of Thai attitudes is desirable, the semantic differential techniques could be used widely by virtue of its simplicity and ease of administration. Results of such application would single out those groups which lie toward the extremes of an attitude continuum. A fraction of such groups could then be subjected to other more elaborate, and more costly techniques such as an in-depth interview schedule, to pin point attitude factors. Using the SD approach, economies would be realized. In view of the lack of knowledge in this area, such a systematic study should provide valuable information required for the improvement of the Thai management practices. It could be a cost effective use of available research resources.

EXHIBIT 1.   AN ILLUSTRATION OF A SEMANTIC SPACE

Eisenhower Republicans   Stevenson voters

The "Semantic space" of two groups of American voters in
1952--Eisenhower Republicans and Stevenson Democrats--is
shown in the above figures. Six concepts are rated by
subjects on the scales: fair-unfair, strong-weak and
active-passive. Each of the six concepts is numbered
according to the following key: 1. Stevenson, 2. Policy
in China, 3. Federal spending, 4. Truman, 5. Eisenhower,
6. Roosevelt. In this three-dimensional representation
the vertical distance represents the scale active-passive.

Adapted from Osgood, Suci and Tannenbaum, The Measurement
of Meaning, p. 114, Urbana: University of Illinois Press,
1957.

EXHIBIT 2

QUESTIONNAIRE FORM, ENGLISH VERSION

Part 1

INSTRUCTIONS

The purpose of this test is to ascertain your feelings toward certain concepts by getting your ratings of the concepts on a set of descriptive scales. Please rate the concepts on the basis of what they mean to you, not what you think the general impression of the word might be to the world at large. Place a check mark on each of the scales whenever you think that the concept should be rated. Work as fast as you can; don't take too long to make any rating; rate your first impressions of the concepts.

Make full use of all seven scales divisions in indicating your rating. Indicate a neutral rating if your feelings about the concept are really neutral, but not as an alternative to what might be a difficult decision. The more accurately you shade your rating according to your feelings, the more useful the test results will be. This can be best accomplished by making your ratings on your first impression and working as rapidly as possible.

Example

If you were to rate the term "AIRPLANE" and came to the scale 'fast-slow,' you would probably consider "AIRPLANE" fast and place the check mark on the 'fast' end of the 'fast-slow' scale, thus:

AIRPLANE

fast IXI_I_I_I_I_I_I slow

But if you were rating the term "WAGON" and came again
to the 'fast-slow' scale, you would probably consider it
quite slow and rate it thus:

WAGON

fast I_I_I_I_I_IXI_I slow

Next, if you were rating the word "AUTOMOBILE" on the
'fast-slow' scale, you might consider "AUTOMOBILE" only
fairly fast and rate it thus:

AUTOMOBILE

fast I_I_IXI_I_I_I_I slow

If you were rating the word "LULLABY" on the 'fast-slow'
scale, we probably all agree that it belongs nearer the
slow end--but it would be necessary for you to decide just
how slow the word "LULLABY" seems to you. Similarly, you
might rate the word "PLAYBOY" as quite fast, but each of
us may have a different idea of exactly where to rate the
word. So rate each word as you think it should be rated.

Most of the ratings you are to make will not be as
literal as these examples. For example, rating the word
"OBJECTIVITY," you might come to the scale 'heavy-light.'
There is no obvious correct answer here--so rate it as you
see it; does objectivity seem to you to be heavy or light
or at some point in-between? Don't expect the ratings to
be literal. We want your impressions of the concept, not
a dictionary definition. In some cases you may wonder

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how a certain scale can apply to the concept you are rating, but it has been found that you will be able to make the decisions quite easily if you MAKE YOUR RATINGS QUICKLY ON THE BASIS OF FIRST IMPRESSIONS. It should take you about ten minutes to complete all of the ratings.

IMPORTANT

1. Place your check mark in the middle of spaces, not on the boundaries; thus IXI, not this I X I.

2. Be sure to check every scale for every concept— do not omit any.

3. Never put more than one check mark on a single scale.

wise	I	I	I	I	I	I	I	foolish
bad	I	I	I	I	I	I	I	good
true	I	I	I	I	I	I	I	false
soft	I	I	I	I	I	I	I	hard
beautiful	I	I	I	I	I	I	I	ugly
fast	I	I	I	I	I	I	I	slow
kind	I	I	I	I	I	I	I	cruel
masculine	I	I	I	I	I	I	I	feminine
hot	I	I	I	I	I	I	I	cold
heavy	I	I	I	I	I	I	I	light
passive	I	I	I	I	I	I	I	active

kind	I	I	I	I	I	I	I	cruel
foolish	I	I	I	I	I	I	I	wise
good	I	I	I	I	I	I	I	bad
false	I	I	I	I	I	I	I	true
fast	I	I	I	I	I	I	I	slow
passive	I	I	I	I	I	I	I	active
light	I	I	I	I	I	I	I	heavy
masculine	I	I	I	I	I	I	I	feminine
hard	I	I	I	I	I	I	I	soft
beautiful	I	I	I	I	I	I	I	ugly
hot	I	I	I	I	I	I	I	cold

ugly	I	I	I	I	I	I	I	beautiful
soft	I	I	I	I	I	I	I	hard
wise	I	I	I	I	I	I	I	foolish
kind	I	I	I	I	I	I	I	cruel
false	I	I	I	I	I	I	I	true
good	I	I	I	I	I	I	I	bad
fast	I	I	I	I	I	I	I	slow
masculine	I	I	I	I	I	I	I	feminine
active	I	I	I	I	I	I	I	passive
heavy	I	I	I	I	I	I	I	light
hot	I	I	I	I	I	I	I	cold

RESPONSIBILITY

kind	I I I I I I I	cruel
foolish	I I I I I I I	wise
good	I I I I I I I	bad
false	I I I I I I I	true
fast	I I I I I I I	slow
passive	I I I I I I I	active
light	I I I I I I I	heavy
masculine	I I I I I I I	feminine
hard	I I I I I I I	soft
beautiful	I I I I I I I	ugly
hot	I I I I I I I	cold

DUTY

ugly	I I I I I I I	beautiful
soft	I I I I I I I	hard
wise	I I I I I I I	foolish
kind	I I I I I I I	cruel
false	I I I I I I I	true
good	I I I I I I I	bad
fast	I I I I I I I	slow
masculine	I I I I I I I	feminine
active	I I I I I I I	passive
heavy	I I I I I I I	light
hot	I I I I I I I	cold

PLAY

wise	I I I I I I I	foolish
bad	I I I I I I I	good
true	I I I I I I I	false
soft	I I I I I I I	hard
beautiful	I I I I I I I	ugly
fast	I I I I I I I	slow
kind	I I I I I I I	cruel
masculine	I I I I I I I	feminine
hot	I I I I I I I	cold
heavy	I I I I I I I	light
passive	I I I I I I I	active

ugly	I I I I I I I I	beautiful
soft	I I I I I I I I	hard
wise	I I I I I I I I	foolish
kind	I I I I I I I I	cruel
false	I I I I I I I I	true
good	I I I I I I I I	bad
fast	I I I I I I I I	slow
masculine	I I I I I I I I	feminine
active	I I I I I I I I	passive
heavy	I I I I I I I I	light
hot	I I I I I I I I	cold

wise	I I I I I I I I	foolish
bad	I I I I I I I I	good
true	I I I I I I I I	false
soft	I I I I I I I I	hard
beautiful	I I I I I I I I	ugly
fast	I I I I I I I I	slow
kind	I I I I I I I I	cruel
masculine	I I I I I I I I	feminine
hot	I I I I I I I I	cold
heavy	I I I I I I I I	light
passive	I I I I I I I I	active

kind	I I I I I I I I	cruel
foolish	I I I I I I I I	wise
good	I I I I I I I I	bad
false	I I I I I I I I	true
fast	I I I I I I I I	slow
passive	I I I I I I I I	active
light	I I I I I I I I	heavy
masculine	I I I I I I I I	feminine
hard	I I I I I I I I	soft
beautiful	I I I I I I I I	ugly
hot	I I I I I I I I	cold

AUTHORITY 10

kind	I	I	I	I	I	I	I	cruel
foolish	I	I	I	I	I	I	I	wise
good	I	I	I	I	I	I	I	bad
false	I	I	I	I	I	I	I	true
fast	I	I	I	I	I	I	I	slow
passive	I	I	I	I	I	I	I	active
light	I	I	I	I	I	I	I	heavy
masculine	I	I	I	I	I	I	I	feminine
hard	I	I	I	I	I	I	I	soft
beautiful	I	I	I	I	I	I	I	ugly
hot	I	I	I	I	I	I	I	cold

SENIOR 11

ugly	I	I	I	I	I	I	I	beautiful
soft	I	I	I	I	I	I	I	hard
wise	I	I	I	I	I	I	I	foolish
kind	I	I	I	I	I	I	I	cruel
false	I	I	I	I	I	I	I	true
good	I	I	I	I	I	I	I	bad
fast	I	I	I	I	I	I	I	slow
masculine	I	I	I	I	I	I	I	feminine
active	I	I	I	I	I	I	I	passive
heavy	I	I	I	I	I	I	I	light
hot	I	I	I	I	I	I	I	cold

OFFICE 15

wise	I	I	I	I	I	I	I	foolish
bad	I	I	I	I	I	I	I	good
true	I	I	I	I	I	I	I	false
soft	I	I	I	I	I	I	I	hard
beautiful	I	I	I	I	I	I	I	ugly
fast	I	I	I	I	I	I	I	slow
kind	I	I	I	I	I	I	I	cruel
masculine	I	I	I	I	I	I	I	feminine
hot	I	I	I	I	I	I	I	cold
heavy	I	I	I	I	I	I	I	light
passive	I	I	I	I	I	I	I	active

wise	I	I	I	I	I	I	I	foolish
bad	I	I	I	I	I	I	I	good
true	I	I	I	I	I	I	I	false
soft	I	I	I	I	I	I	I	hard
beautiful	I	I	I	I	I	I	I	ugly
fast	I	I	I	I	I	I	I	slow
kind	I	I	I	I	I	I	I	cruel
masculine	I	I	I	I	I	I	I	feminine
hot	I	I	I	I	I	I	I	cold
heavy	I	I	I	I	I	I	I	light
passive	I	I	I	I	I	I	I	active

SUPERIOR   12

kind	I	I	I	I	I	I	I	cruel
foolish	I	I	I	I	I	I	I	wise
good	I	I	I	I	I	I	I	bad
false	I	I	I	I	I	I	I	true
fast	I	I	I	I	I	I	I	slow
passive	I	I	I	I	I	I	I	active
light	I	I	I	I	I	I	I	heavy
masculine	I	I	I	I	I	I	I	feminine
hard	I	I	I	I	I	I	I	soft
beautiful	I	I	I	I	I	I	I	ugly
hot	I	I	I	I	I	I	I	cold

SUBORDINATE   13

ugly	I	I	I	I	I	I	I	beautiful
soft	I	I	I	I	I	I	I	hard
wise	I	I	I	I	I	I	I	foolish
kind	I	I	I	I	I	I	I	cruel
false	I	I	I	I	I	I	I	true
good	I	I	I	I	I	I	I	bad
fast	I	I	I	I	I	I	I	slow
masculine	I	I	I	I	I	I	I	feminine
active	I	I	I	I	I	I	I	passive
heavy	I	I	I	I	I	I	I	light
hot	I	I	I	I	I	I	I	cold

Part 2

INSTRUCTIONS

The purpose of this test is to attempt to list items which are associated with people's thought and feelings about things in general. The test consists of open-ended sentences. In taking the test please read the unfinished sentences, think about it, and complete them with thoughts that immediately come to your mind. There is no right or wrong response to the questions. Again we are interested in your first impressions. If you have more than one thought on each sentence, please write down as many as you like.

You will find that the sentences are worded in third person terms. This simply means that we would like your responses to be what you feel that people in your group would make.

Please feel free to complete the sentences. Your responses will be used to compute statistics. Individual responses will be kept strictly confidential.

Sentence Completion Form

1. When he thinks about his livelihood, he . . .

2. People who do not have to work for their living are . . .

3. The most important thing in life is . . .

4. When he has time he . . .

5. He is wealthy because . . .

6. When he has a lot of money he . . .

7. Poor people are . . .

8. When the boss told him to do it, he . . .

9.   When he is in the presence of a man who is superior
to him, he feels . . .

10. When his superior gave him an order which he knew
was wrong, he . . .

11. When he was placed in a position of power, he . . .

12. The best way to treat a subordinate is . . .

BIOGRAPHICAL DATA

Please fill in this data sheet leaving blank any questions which do not apply.

1. Name of Organization _____

2. Your nationality _____

3. Age: _____

4. Sex: _____

5. Marital Status: Single   _____

                       Married   _____

                       Divorced   _____

6. Number of years you went to school

   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

   more than 18 _____

7. Degrees earned _____

8. Number of years in service _____

9. Your rank _____

EXHIBIT 3

QUESTIONNAIRE FORM, THAI VERSION

ตอนที่ 1
คำชี้แจงวิธีตอบ

แบบทดสอบนี้มีความมุ่งหมายเพื่อจะศึกษาความรู้สึกนึกคิด
ของท่าน เกี่ยวกับเรื่องต่างๆ โดยให้ท่านตีความหมายของคำพูด
บางคำ โดยเปรียบเทียบ คำนั้นๆ กับคำที่ใช้เป็นมาตรฐานเป็นคู่ๆ
เมื่อท่านอ่านคำพูดที่เขียนไว้เหนือคำมาตรฐาน ขอให้พิจารณาว่า
คำนั้นมีความหมายอย่างไรตามความรู้สึกของท่าน การตีความ
หมายของ ท่านไม่จำเป็นจะต้องตรงกับคนอื่น ซึ่งอาจจะ มีความ
รู้สึกแตกต่างกันไปแต่ละบุคคล เมื่อพิจารณาแล้วขอให้กาลงบน
มาตราส่วน ที่ทำไว้บนเส้นบรรทัด ระหว่างคำคู่ แต่ถ้าแต่ว่าท่านเห็น
คำที่อยู่เหนือมาตราส่วน นั้นมีความหมายใกล้กับคำที่อยู่ทางซ้าย
หรืออยู่ทางขวา <u>การทำแบบสอบตามนี้ขอให้ทำให้ค่อนข้างเร็ว
ไม่ต้องคิดนาน</u> และ <u>กาลงไปตามความคิดที่เกิดขึ้นครั้งแรก
ไม่ต้องทบทวนอีก</u>

มาตราส่วนทำไว้ 7 ส่วนด้วยกัน ขอให้พยายามแยกความ
หมายโดยใช้มาตราส่วนทั้ง 7 ส่วน ถ้ากาส่วนที่อยู่ตรงกลางหมาย
ความว่า ท่านเห็นว่าความหมายของคำนั้นอยู่ระหว่างกลางคำมาตรฐาน
จริงๆ <u>อย่ากาลงบนส่วนนี้เพื่อหลีกเลี่ยงไม่ตัดสินใจ แยกความ
หมายของคำ</u> ท่านยิ่งแยกความหมายกาลงบนมาตราส่วนได้
ละเอียดมากขึ้นเท่าไร การทดสอบนี้ก็จะมีประโยชน์มากขึ้นเท่านั้น

ตัวอย่าง

สมมุติว่า ท่านจะตีความหมาย ของคำว่า "เครื่องบิน" โดย
เทียบกับมาตราส่วน ซึ่งมีคำว่า "เร็ว" อยู่ทางซ้าย และ "ช้า"
อยู่ทางขวา ท่านย่อมรู้สึก ว่า "เครื่องบิน" มีความหมาย

91

ไปในทางเร็วมาก ฉะนั้นก็ละกาลงมนส่วนที่อยู่ใกล้ที่สุดกับคำว่า
"เร็ว" ดังนี้ : –

<p align="center">เครื่องบิน</p>

<p align="center">เร็ว ·—×—·—·—·—·—·— ช้า</p>

แต่ถ้าท่านจะตีความหมายของคำว่า "เกวียน" บนมาตราส่วน
นี้ ท่านอาจจะรู้สึกว่า "เกวียน" ค่อนข้างช้า (แต่ยังไม่ช้ามาก
เหมือน "เต่า") ดังนั้นท่านก็อาจจะกาลงมนส่วนที่อยู่ค่อนข้าง
ใกล้กับคำว่า "ช้า" ดังนี้ : –

<p align="center">เกวียน</p>

<p align="center">เร็ว ·—·—·—·—×—· ช้า</p>

ต่อไป สมมุติว่า ท่านจะตีความหมายของคำว่า "รถยนตร์"
และ ท่านอ่านคงมาถึงมาตราส่วน "เร็ว – ช้า" ท่านอาจจะรู้สึก
ว่า "รถยนตร์" เร็วพอควร ท่านก็อาจจะกาลงไปดังนี้ : –

<p align="center">รถยนตร์</p>

<p align="center">เร็ว ·—·—×—·—·—·—· ช้า</p>

ถ้าเราจะตีความหมายของคำว่า "เพลงกล่อมเด็ก" โดยใช้
มาตราส่วน "เร็ว – ช้า" เราอาจจะเห็นว่า "เพลงกล่อมเด็ก" ว่าจะ
อยู่ใกล้ไปทางคำว่า "ช้า" แต่ใกล้แค่ไหน แต่ละคนต้องตัดสิน
ใจเอาเอง หรือถ้าเราจะตีความหมายของคำว่า "หนุ่มสังคม"
เราก็อาจจะเห็นว่า "หนุ่มสังคม" ค่อนข้างจะเร็ว แต่เร็ว
แค่ไหน แต่ละคนก็คงจะมีความเห็นต่างกัน ฉะนั้นขอให้ท่าน
กาลงไปตามที่ตัวท่านคิด

ในการตีความหมายนี้ ส่วนมากจะตีความตามตัวอักษร
ไม่ได้ เช่น ตัวอย่าง คำว่า "ปรนับ" เมื่ออ่านไปถึงมาตราส่วน
"หนัก – เบา" ย่อมไม่มีคำตอบที่เห็นได้ชัดว่าหนักเบาเพียงไร
ฉะนั้นฯ ขอให้ท่านตีความตามความรู้สึกของท่าน ท่านเห็นว่า

<p align="center">92</p>

ปรนัย " หนักหรือเบา หรืออยู่ระหว่างกลางตรงไหน นั้นอยู่กับ
ตัวท่าน เราต้องการความหมายตามความรู้สึกของท่าน ไม่ใช่
ความหมายตามพจนานุกรมหรือคำจำกัดความ บางทีท่านอาจ
จะคิดไม่ออกว่าคำที่ใช้เป็นมาตรฐานมาเกี่ยวกับคำที่จะตัดความ
อย่างไร แต่ท่านจะสามารถตัดสินใจได้โดยไม่ยากนัก ถ้าท่าน
ทำแบบทดสอบนี้โดยเร็ว และกาลงไปตามความคิดแรกที่เกิด
ขึ้น แบบทดสอบนี้ควรจะใช้เวลาไม่เกิน ๑๐ นาที

หมายเหตุ : -
1. กาลงตรงกลางช่อง อย่างนี้ !X! อย่ากาอย่างนี้ !__!
2. อย่ากาบนมาตราส่วนอันใดอันหนึ่งมากกว่า 1 แห่ง
3. ขอให้ทำให้ครบทุกมาตรา อย่าข้ามไป

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การงาน

ฉลาด	'_'_'_'_'_'_'	โง่
เลว	'_'_'_'_'_'_'	ดี
จริง	'_'_'_'_'_'_'	เท็จ
นุ่ม	'_'_'_'_'_'_'	แข็ง
สวยงาม	'_'_'_'_'_'_'	น่าเกลียด
เร็ว	'_'_'_'_'_'_'	ช้า
เมตตา	'_'_'_'_'_'_'	โหดร้าย
เพศชาย	'_'_'_'_'_'_'	เพศหญิง
ร้อน	'_'_'_'_'_'_'	เย็น
หนัก	'_'_'_'_'_'_'	เบา
เฉื่อยชา	'_'_'_'_'_'_'	คล่องแคล่ว

ธุรกิจ

เมตตา	'_'_'_'_'_'_'	โหดร้าย
โง่	'_'_'_'_'_'_'	ฉลาด
ดี	'_'_'_'_'_'_'	เลว
เท็จ	'_'_'_'_'_'_'	จริง
เร็ว	'_'_'_'_'_'_'	ช้า
เฉื่อยชา	'_'_'_'_'_'_'	คล่องแคล่ว
เบา	'_'_'_'_'_'_'	หนัก
เพศชาย	'_'_'_'_'_'_'	เพศหญิง
แข็ง	'_'_'_'_'_'_'	นุ่ม
สวยงาม	'_'_'_'_'_'_'	น่าเกลียด
ร้อน	'_'_'_'_'_'_'	เย็น

การค้าขาย

น่าเกลียด	'_'_'_'_'_'_'	สวยงาม
นุ่ม	'_'_'_'_'_'_'	แข็ง
ฉลาด	'_'_'_'_'_'_'	โง่
เมตตา	'_'_'_'_'_'_'	โหดร้าย
เท็จ	'_'_'_'_'_'_'	จริง
เร็ว	'_'_'_'_'_'_'	ช้า
เพศชาย	'_'_'_'_'_'_'	เพศหญิง
คล่องแคล่ว	'_'_'_'_'_'_'	เฉื่อยชา
ดี	'_'_'_'_'_'_'	เลว
หนัก	'_'_'_'_'_'_'	เบา
ร้อน	'_'_'_'_'_'_'	เย็น

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ความรับผิดชอบ

เมตตา '_'_'_'_'_'_'_' โหดร้าย
โง่ '_'_'_'_'_'_'_' ฉลาด
ดี '_'_'_'_'_'_'_' เลว
เท็จ '_'_'_'_'_'_'_' จริง
เร็ว '_'_'_'_'_'_'_' ช้า
เฉื่อยชา '_'_'_'_'_'_'_' คล่องแคล่ว
เมา '_'_'_'_'_'_'_' หนัก
เพศชาย '_'_'_'_'_'_'_' เพศหญิง
แข็ง '_'_'_'_'_'_'_' นุ่ม
สวยงาม '_'_'_'_'_'_'_' น่าเกลียด
ร้อน '_'_'_'_'_'_'_' เย็น

หน้าที่

น่าเกลียด '_'_'_'_'_'_'_' สวยงาม
นุ่ม '_'_'_'_'_'_'_' แข็ง
ฉลาด '_'_'_'_'_'_'_' โง่
เมตตา '_'_'_'_'_'_'_' โหดร้าย
เท็จ '_'_'_'_'_'_'_' จริง
เร็ว '_'_'_'_'_'_'_' ช้า
เพศชาย '_'_'_'_'_'_'_' เพศหญิง
คล่องแคล่ว '_'_'_'_'_'_'_' เฉื่อยชา
ดี '_'_'_'_'_'_'_' เลว
หนัก '_'_'_'_'_'_'_' เมา
ร้อน '_'_'_'_'_'_'_' เย็น

การเล่น

ฉลาด '_'_'_'_'_'_'_' โง่
เลว '_'_'_'_'_'_'_' ดี
จริง '_'_'_'_'_'_'_' เท็จ
นุ่ม '_'_'_'_'_'_'_' แข็ง
สวยงาม '_'_'_'_'_'_'_' น่าเกลียด
เร็ว '_'_'_'_'_'_'_' ช้า
เมตตา '_'_'_'_'_'_'_' โหดร้าย
เพศชาย '_'_'_'_'_'_'_' เพศหญิง
ร้อน '_'_'_'_'_'_'_' เย็น
หนัก '_'_'_'_'_'_'_' เมา
เฉื่อยชา '_'_'_'_'_'_'_' คล่องแคล่ว

เมตตา |_|_|_|_|_|_| โหดร้าย
โง่ |_|_|_|_|_|_| ฉลาด
ดี |_|_|_|_|_|_| เลว
เท็จ |_|_|_|_|_|_| จริง
เร็ว |_|_|_|_|_|_| ช้า
เฉื่อยชา |_|_|_|_|_|_| คล่องแคล่ว
เบา |_|_|_|_|_|_| หนัก
เพศชาย |_|_|_|_|_|_| เพศหญิง
แข็ง |_|_|_|_|_|_| นุ่ม
สวยงาม |_|_|_|_|_|_| น่าเกลียด
ร้อน |_|_|_|_|_|_| เย็น

อาวุโส

น่าเกลียด |_|_|_|_|_|_| สวยงาม
นุ่ม |_|_|_|_|_|_| แข็ง
ฉลาด |_|_|_|_|_|_| โง่
เมตตา |_|_|_|_|_|_| โหดร้าย
เท็จ |_|_|_|_|_|_| จริง
เร็ว |_|_|_|_|_|_| ช้า
เพศชาย |_|_|_|_|_|_| เพศหญิง
คล่องแคล่ว |_|_|_|_|_|_| เฉื่อยชา
ดี |_|_|_|_|_|_| เลว
หนัก |_|_|_|_|_|_| เบา
ร้อน |_|_|_|_|_|_| เย็น

สำนักงาน

ฉลาด |_|_|_|_|_|_| โง่
เลว |_|_|_|_|_|_| ดี
จริง |_|_|_|_|_|_| เท็จ
นุ่ม |_|_|_|_|_|_| แข็ง
สวยงาม |_|_|_|_|_|_| น่าเกลียด
เร็ว |_|_|_|_|_|_| ช้า
เมตตา |_|_|_|_|_|_| โหดร้าย
เพศชาย |_|_|_|_|_|_| เพศหญิง
ร้อน |_|_|_|_|_|_| เย็น
หนัก |_|_|_|_|_|_| เบา
เฉื่อยชา |_|_|_|_|_|_| คล่องแคล่ว

ข้าราชการ

ฉลาด	'''''''''''	โง่
เลว	'''''''''''	ดี
ครึ่ง	'''''''''''	เท็ด
หนุ่ม	'''''''''''	แก่
สวยงาม	'''''''''''	น่าเกลียด
เร็ว	'''''''''''	ช้า
เมตตา	'''''''''''	โหดร้าย
เพศชาย	'''''''''''	เพศหญิง
ร้อน	'''''''''''	เย็น
หนัก	'''''''''''	เบา
เฉื่อยชา	'''''''''''	คล่องแคล่ว

ผู้บังคับบัญชา

เมตตา	'''''''''''	โหดร้าย
โง่	'''''''''''	ฉลาด
ดี	'''''''''''	เลว
เท็ด	'''''''''''	ครึ่ง
เร็ว	'''''''''''	ช้า
เฉื่อยชา	'''''''''''	คล่องแคล่ว
เบา	'''''''''''	หนัก
เพศชาย	'''''''''''	เพศหญิง
แก่	'''''''''''	หนุ่ม
สวยงาม	'''''''''''	น่าเกลียด
ร้อน	'''''''''''	เย็น

ผู้น้อย

น่าเกลียด	'''''''''''	สวยงาม
หนุ่ม	'''''''''''	แก่
ฉลาด	'''''''''''	โง่
เมตตา	'''''''''''	โหดร้าย
เท็ด	'''''''''''	ครึ่ง
เร็ว	'''''''''''	ช้า
เพศชาย	'''''''''''	เพศหญิง
คล่องแคล่ว	'''''''''''	เฉื่อยชา
ดี	'''''''''''	เลว
หนัก	'''''''''''	เบา
ร้อน	'''''''''''	เย็น

หย่อนใจ

น่าเกลียด	สวยงาม
นุ่ม	แข็ง
ฉลาด	โง่
เมตตา	โหดร้าย
เท็จ	จริง
เร็ว	ช้า
เพศชาย	เพศหญิง
คล่องแคล่ว	เชื่องช้า
ดี	เลว
หนัก	เบา
ร้อน	เย็น

เกมกีฬา

ฉลาด	โง่
เลว	ดี
จริง	เท็จ
นุ่ม	แข็ง
สวยงาม	น่าเกลียด
เร็ว	ช้า
เมตตา	โหดร้าย
เพศชาย	เพศหญิง
ร้อน	เย็น
หนัก	เบา
เชื่องช้า	คล่องแคล่ว

การพัก

เมตตา	โหดร้าย
จริง	ฉลาด
ดี	เลว
เท็จ	จริง
เร็ว	ช้า
เชื่องช้า	คล่องแคล่ว
เบา	หนัก
เพศชาย	เพศหญิง
แข็ง	นุ่ม
สวยงาม	น่าเกลียด
ร้อน	เย็น

ตอนที่ 2

แบบทดสอบนี้มีความมุ่งหมายที่จะรวบรวมแง่คิด ที่คนเรามี
ต่อเรื่องต่างๆ โดยตั้งคำถามเป็นเรื่องๆ ไป คำถามที่ตั้งไว้
เป็นประโยคที่ไม่จบในตัว แต่อาจจะต่อให้จบได้สุดแต่แง่คิด
และความรู้สึกของแต่ละคน ขอให้ท่านอ่านประโยคเหล่านี้ และ
ต่อเติมให้เป็นประโยค ที่มีความหมายตามความคิดที่เกิดขึ้นในใจ
การต่อประโยคนี้ไม่มีผิดไม่มีถูก อย่างไรทั้งสิ้น เราต้องการทราบ
ความรู้สึกที่เกิดขึ้น เมื่อท่านอ่านประโยคเหล่านั้น ถ้าท่านมีความ
คิดหลายๆ อย่าง ก็ขอให้เขียนลงไปตามที่ต้องการ

ท่านจะสังเกตเห็นว่า ประโยคต่างๆ เขียนไว้โดยใช้คำว่า "เรา"
บ้าง "คนเรา" บ้าง ทั้งนี้ก็เพื่อให้ท่านได้ต่อเติมประโยค ตามความ
รู้สึกที่ท่านเห็นว่า คนในกลุ่มของท่านน่าจะคิด

ขอให้ต่อเติมประโยคด้วยความสะดวกใจ และผลการทดสอบ
จะใช้ในการคำนวณสถิติเท่านั้น คำตอบแต่ละบุคคลจะไม่นำไป
เปิดเผยแต่อย่างไร

แบบทดสอบเติมประโยค

1. เมื่อเราคิดถึงการทำมาหากิน เรา . . .

. คนที่ไม่ต้องทำงานเลี้ยงชีพ เป็น . . .

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3. สิ่งที่สำคัญที่สุดในชีวิตได้แก่ . . .

4. เมื่อเรามีเวลา เรา . . .

5. เขาเป็นคนร่ำรวยเพราะ . . .

6. เมื่อเรามีเงินมาก เรา . . .

7. คนยากจนเป็นคน . . .

8 เมื่อนายสั่งให้เราทำ เรา . . .

9. เมื่ออยู่กับคนที่มีฐานะการงานสูงกว่าเรา เรา . . .

10 เมื่อผู้บังคับบัญชาสั่งให้เราทำสิ่งที่เรารู้ว่าผิด เรา . . .

11 เมื่อเราอยู่ในตำแหน่งหน้าที่ซึ่งมีอำนาจ เรา . . .

12. ทางที่ดีที่สุดในการปฏิบัติต่อผู้น้อยคือ . . .

ข้อมูลเกี่ยวกับผู้ตอบ

กรุณากรอกข้อความในช่องว่าง   ตรงไหนที่ไม่เกี่ยวกับ
ตัวท่านให้เว้นไว้

1. ชื่อหน่วยงาน   _____

2. เชื้อชาติ   _____

3. อายุ   _____

4. เพศ   _____

5. สภาพการแต่งงาน   โสด   _____
                  แต่งงานแล้ว   _____
                  หย่ากับคู่สมรส   _____

6. จำนวนปีที่เคยศึกษา   (กาลง บนเลขที่ต้องการ)
    1   2   3   4   5   6   7   8   9   10   11   12   13
    14   15   16   17   18
    มากกว่า   18 ปี _____

7. ประกาศนียบัตร / ปริญญาที่ได้รับ
    _____

8. จำนวนปีที่รับราชการ   _____

9. ยศ   _____

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BIBLIOGRAPHY

Allport, G. W., "The Composition of Political Attitudes," American Journal of Sociology, v. 2, p. 220-238, 1929.

Backstrom, Charles H., and Hursh, G. D., Survey Research, Evanston Northwestern University Press, 1971.

Breslin, R. W., Lonner, W. J., and Thorndike, R. M., Cross-Cultural Research Methods, New York: John Wiley and Sons, Inc., 1973.

Brody, N., "Anxiety and Variability of Word Association," Journal of Abnormal and Social Psychology, v. 68, p. 331-334, 1964.

Burwen, L. S., Campbell, D. T. and Kidd, J., "The Use of a Sentence Completion Test in Measuring Attitudes Toward Superiors and Subordinates," Journal of Applied Psychology, v. 40, p. 248-250, 1956.

Campbell, Donald T. and Stanley, Julian, C., Experimental and Quasi-Experimental Designs for Research, Chicago: Rand McNally College Publishing Company, 1963.

Campbell, D. T. and McCormack, Thelma H., "Military Experience and Attitudes Toward Authority," American Journal of Sociology, v. 62, p. 482-490. 1957.

Campbell, James W., "An Attitude Survey in a Typical Manufacturing Firm," Personnel Psychology, v. 1, p. 31-39, 1948.

Cater, Gerald, "Employee Attitudes at the University of Illinois," Journal of Applied Psychology, v. 31, p. 463-469, 1947.

Cole, Remson J., "A Survey of Employee Attitudes," Public Opinion Quarterly, v. 4, p. 457-506, 1940

Cronbach, L. J., Essentials of Psychological Testing, New York: Harper and Brothers, Publishers, 1960.

Cumming, L. L. and Scott, W. E., (Eds.), Readings in Organization Behavior and Human Performance, Homewood, Ill.: Richard D. Irwin, Inc., 1969.

Eckerman, Arthur C., "Study of Grievances and Agrieved Employees," Journal of Applied Psychology, v. 32, p. 255-269, 1948.

Edwards, A. L. and Kilpatrick, F. P., "A Technique for Con-
struction of Attitude Scales," Journal of Applied
Psychology, v. 32, p. 374-384, 1948.

Edwards, A. L. and Kenney, K. C., "A Comparison of the
Thurstone and Likert Technique of Attitudes Scale
Construction," Journal of Applied Psychology, v. 30,
p. 72-83, 1946.

Ferguson, L. W., "The Influence of Individual Attitudes on
Construction of an Attitude Scale," Journal of Applied
Psychology, v. 19, p. 115-117, 1935.

Frank, L. K., "Projective Methods for the Study of Personality,"
Journal of Applied Psychology, v. 22, p. 389-413, 1938.

Fishbein, Martin, Readings in Attitude Theory and Measurement,
New York: John Wiley and Sons, Inc., 1968.

Grant, D. L., Katkovsky, Walter and Bray, D. W., "Constibutions
of Projective Techniques to Assessment of Management
Potential," Journal of Applied Psychology, v. 51, p. 226-
232, 1967.

Guilford, J. P., Psychometric Method, 2nd ed., New York: McGraw-
Hill Book Co., Inc., 1954.

Hartman, Hogan and Wholihen, Modern Business Administration:
Introductory Readings, Glenview, Ill.: Scot, Foresman
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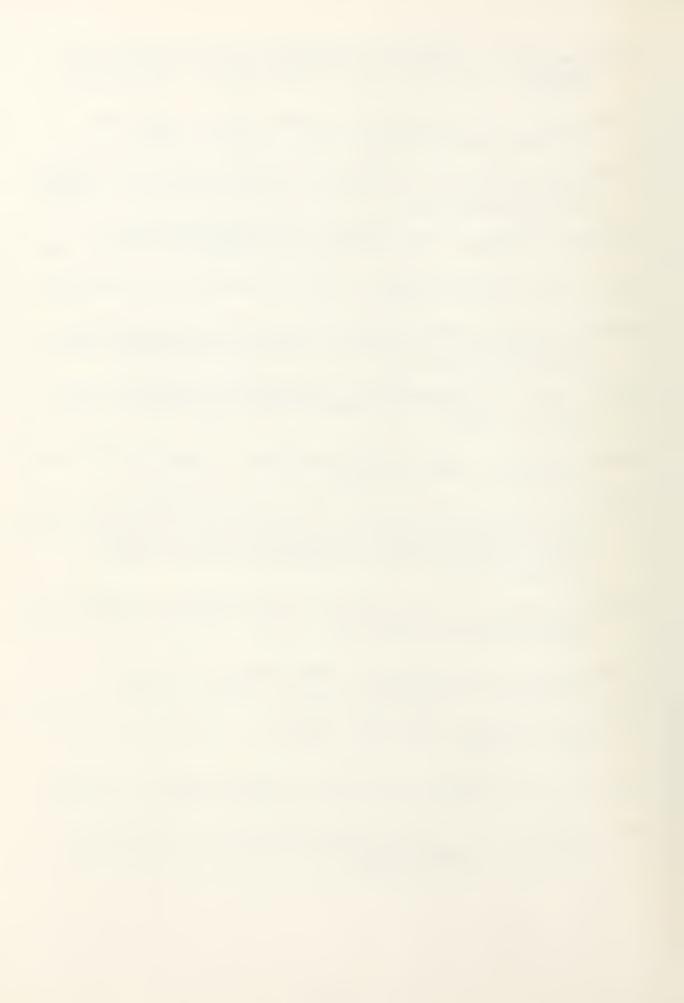Haufmann and Getzils, "Study of the Sentence Completion Test,"
Journal of Projective Technique, v. 17, p. 280-294, 1958.

Herzberg, F., Mausner, B., and Peterson, R. O., Job Attitude
Review of Research and Opinion, Pittsburg: Pennsylvania,
Psychological Service of Pittsburg, 1957.

Kaplan, Kalman J., "On the Ambivalence-Indifference Problem
in Attitude Theory and Measurement. A Suggested Modifi-
cation of the Semantic Differential Technique," Psychologica
Bulletin, v. 77, p. 361-372, 1972.

Kolstad, Arthur, "Attitudes of Employees and Their Supervisors,"
Personnel, v. 20, p. 241-250, 1944.

Kolstad, Arthur, "Employee Attitudes in a Department Store,"
Journal of Applied Psychology, v. 20, p. 470-479, 1936.

Kretch, D., Crutchfield, P. S. and Ballachey, E. L., Individual
in Society: A Textbook of Social Psychology, New York:
McGraw-Hill Book Co., Inc., 1962.

Lawless, David J., _Effective Management Social Psychological Approach_, Englewood Cliffs, New Jersey: Prentice-Hall, 1972.

Likert, R., "A Technique for the Measurement of Attitude," _Archives of Psychology_, v. 140, p. 44-53, 1932.

Likert, R., Rostow, S., and Murphy, G., "A Simple and Reliable Method of Scoring the Thurstone Attitude Scales," _Journal of Social Psychology_, v. 5, pp. 228-238, 1934.

Lindzey, Gardner, (Ed.), _Handbook of Social Psychology_, Massachusetts: Addison-Wesley Publishing Co., Inc., 1954.

Mace, C. A., "Satisfactions in Work," _Occupational Psychology_, v. 22, p. 5-19, 1948.

Manaster, Guy J., and Havighurst, Robert J., _Cross-National Research Social Psychological Method and Problems_, Boston: Houghton Miffin, 1972.

Morse, Nancy C., _Satisfactions in the White Collar Job_, Ann Arbor, Michigan: University of Michigan, Inst. for Social Research, 1953.

Mulak, Stanley A., _The Foundation of Factor Analysis_, New York: McGraw-Hill Book Co., 1972.

McKie, Dougles and Foster, Stephen, "A General Model for Multidimensional Analysis of Semantic Differential Attitude Data," _Proceedings of the Annual Convention of the American Psychological Association_, v. 7 (Pt. 1), p. 45-46, 1972.

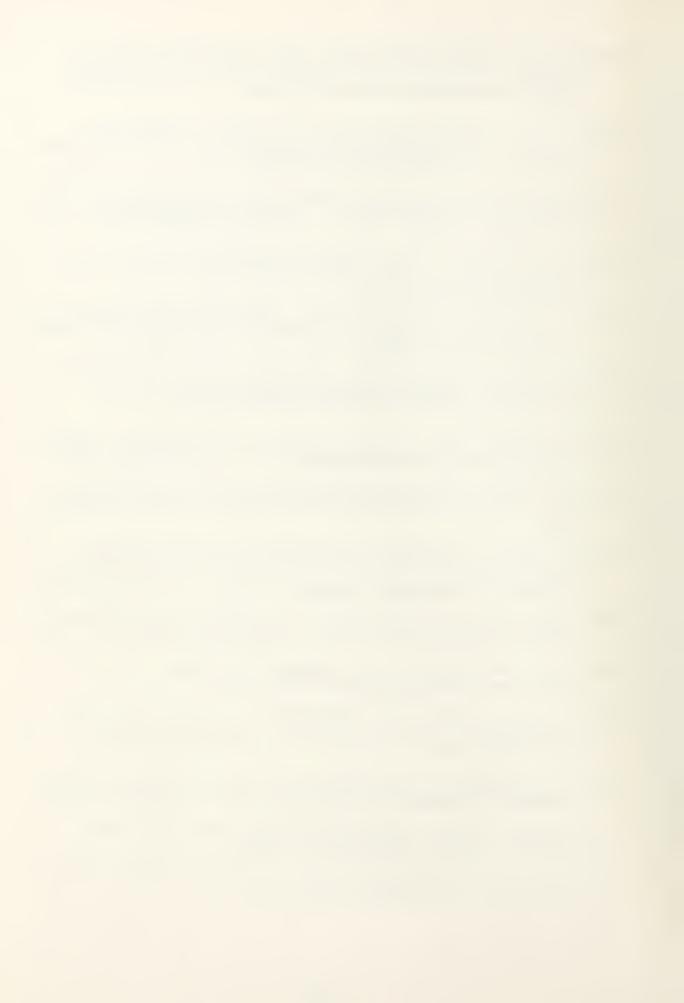Osgood, Charles E., Suci, George J. and Tannenbaum, Percy H., _The Measurement of Meaning_, Urbana: University of Illinois Press, 1957.

Osgood, C. E., "The Nature and Measurement of Meaning," _Psychological Bulletin_, v. 49, p. 197-237, 1952.

Ostrom, Thomas M., "Item Construction in Attitude Measurement," _Public Opinion Quarterly_, (Winter) v. 35 (4), p. 593-600, 1971-1972.

Pigers, Paul and Myers, Charles A., _Personnel Administration_, New York: McGraw-Hill Book Co., Inc., 1961.

Proshansky, H. M., "A Projective Method for the Study of Attitudes," _Journal of Abnormal and Social Psychology_, v. 38, p. 393-395, 1943.

Rotler, J. B. and Willerman, B., "The Incomplete Sentence Test as a Method of Studying Personality," Journal of Consulting and Clinical Psychology, v. 11, p. 43-48, 1947.

Rotler, J. B., "Word Association and Sentence Completion Methods," In Projective Technique, ed. by H. H. Anderson and G. L. Anderson, Prentice-Hall, 1951.

Russell, Gordon W. and Conen, Rodger D., "Characteristic of Student Summer Employment," Journal of Psychology, v. 80, p. 213-222, 1972.

Saltenstall, Robert, "What Employees Want from their Work," Harvard Business Review, v. 31, p. 72-78, 1953.

Sanford, F. H. and Rosenstock, J., "Projective Techniques on the doorstep," Journal of Abnormal and Social Psychology, v. 47, p. 3-16, 1952.

Schruber, Smith and Harrell, "A Factor Analysis of Employee Attitudes," Journal of Applied Psychology, v. 36, p. 247-250, 1952.

Seidman, Jerome M. and Watson, Goodwin, "Satisfaction in Work," Journal Consulting Psychology, v. 4, p. 117-120, 1940.

Senger, John D., An Analysis of Executive Value Structure, Ph.D. Thesis, University of Illinois, Urbana, Illinois, 1965.

Senger, John D., "Managers' Perceptions of Subordinates' Competence As a Function of Personal Value Orientations," Academy of Management Journal, v. 14, p. 415-423, 1971.

Shaw, Marvin E. and Wright, Jack M., Scales for the Measurement of Attitude, New York: McGraw-Hill Book Co., 1972.

Sherif, M. and Sherif, C. W., Social Psychology, New York: Harper and Row Publishers, Inc., 1965.

Stagner, Ross, Rich, J. N., and Britten, R. H., Jr., "Job Attitudes, I. Defense Workers," Personnel Journal, v. 20 p. 90-97, 1941.

Super, Donald E., "Occupational Level and Job Satisfaction," Journal of Applied Psychology, v. 23, p. 547-564, 1939.

Thomas, Kerry, (Ed.), Attitude and Behavior, Middlesex: England, Penguin Books Ltd., 1971.

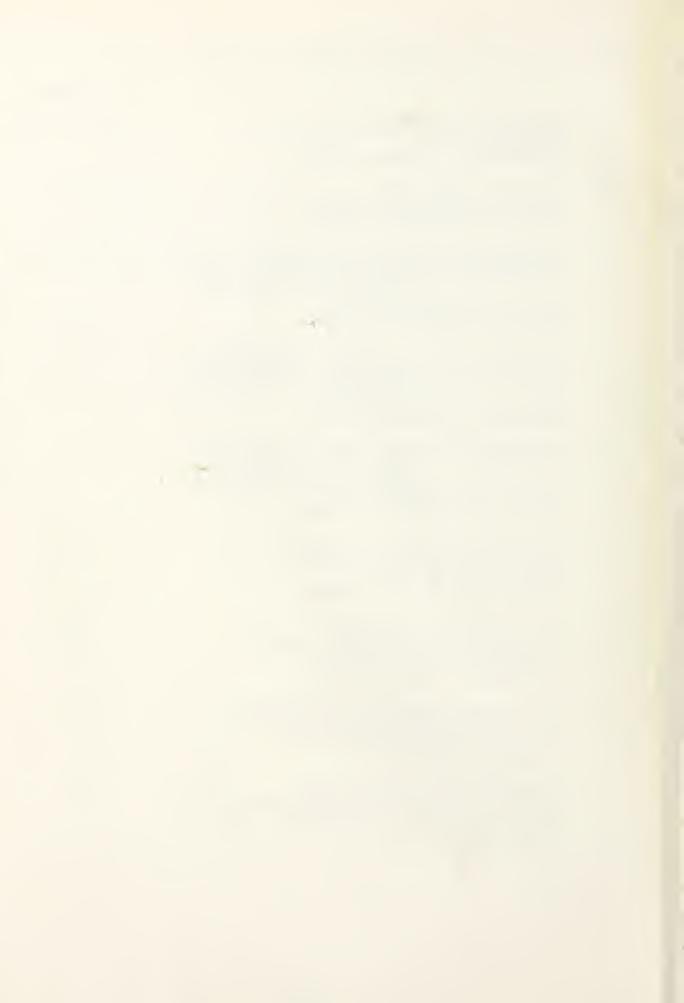Thurstone, L. L., The Measurement of Values, Chicago: The University of Chicago Press, 1959.

Torgerson, Waren S., _Theory and Methods of Scaling_, New York, Wiley, 1958.

Troxell, John P., "Elements in Job Satisfaction: A Study of Attitudes Among Different Occupational and Status Groups," _Personnel_, v. 31, p. 199-205, 1954.

Weitz, J., and Nickols, R. C., "The Validity of Direct and Indirect Questions in Measuring Job Satisfaction," _Personnel Psychology_, v. 6, p. 487-494, 1953.

Whitla, Dean K., _Handbook of Measurement and Assessment in Behavioral Sciences_, Menle Park, California: Addison-Werley Publishing Co., 1968.

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